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STARTING SALARIES 1982

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1982 SURVEY REPORT

STARTING SALARIES AND EMPLOYMENT STATUS OF CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

This report was prepared by the
ACS Office of Manpower Studies.

American Chemical Society
1155 Sixteenth Street, N.W.
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ACKNOWLEDGMENTS

Each year the American Chemical Society surveys chemistry and chemical engineering graduates to determine trends in starting salaries and employment status, at the direction of the Society's Committee on Economic Status. John Robert Jones, Harry Foxwell, and Sandy Schowgurow of the Office of Manpower Studies conducted this year's survey and prepared this report.

Robert K. Neuman, Head
Department of Professional
Relations and Manpower Studies

SUMMARY OF FINDINGS

SALARIES

Starting salaries for inexperienced BS chemists remained at their 1981 level, ending more than a decade of year-to-year increases. Starting salaries increased for new MS and PhD chemists, and for new chemical engineers at all three degree levels.

Inflation's effect on starting salaries has moderated this year. During the year from August 1981 to August 1982, the official consumer price index increased only about 6%, whereas prices had increased about 11% one year earlier and 13% two years earlier.

Table 1 on page 2 shows average starting salaries paid to inexperienced chemistry graduates for 1981 and 1982, and gives additional information concerning the variation among individual salaries within each group. Table 2 on page 3 presents corresponding information for chemical engineering graduates.

For inexperienced chemists, 1982 mean starting salaries were

$17,303 for the BS, unchanged, or in constant dollars down 5.9%
$22,758 for the MS, up 13.2%, or in constant dollars up 6.9%
$30,742 for the PhD, up 7.6%, or in constant dollars up 1.6%

Chemical engineers continue to receive larger starting salaries than do chemists with similar degrees. Among chemical engineers the 1982 mean starting salaries were:

$26,352 for the BS, up 8.3%, or in constant dollars up 2.3%
$28,832 for the MS, up 10.1%, or in constant dollars up 4.0%
$34,634 for the PhD, up 11.6%, or in constant dollars up 5.4%

POST-GRADUATION EMPLOYMENT STATUS

Contrary to what the increased starting salaries for BS chemical engineers might seem to imply, this year many are unemployed. The number not employed but seeking employment has increased dramatically, from 7% in 1981 to more than 22% in 1982. A contributing factor to this increase in unemployment is the large number of new graduates in chemical engineering. Table 3 on page 5 summarizes the post-graduation plans of the graduates responding to the survey.

ADVANCED STUDY PLANS and POSTDOCTORAL FELLOWSHIPS

The percent of new chemistry PhD's accepting post-doctoral appointments remains at about 30 percent. Advanced study plans of 1982 graduates, summarized in Table 4 on page 6, show no major changes from 1981 figures.

Table 1

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMISTRY GRADUATES

by Degree: Summer 1981 and Summer 1982

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1981	1982	1981	1982	1981	1982
90th Percentile	$21,600	$23,000	$25,200	$27,000	$31,960	$35,000
75th Percentile	20,000	20,475	22,800	26,000	30,800	34,000
50th Percentile	17,730	17,000	21,300	24,120	29,500	32,400
25th Percentile	13,716	14,000	17,500	19,875	28,000	30,000
10th Percentile	11,713	12,000	12,987	15,270	23,705	22,530
Mean	17,357	17,303	20,097	22,758	28,580	30,742
Count	346	340	35	58	111	200
Standard Deviation	3,588	4,624	4,162	5,067	4,281	5,327

Table 2

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMICAL ENGINEERING GRADUATES

by Degree: Summer 1981 and Summer 1982

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1981	1982	1981	1982	1981	1982
90th Percentile	$26,000	$28,810	$28,877	$31,950	$37,150	37,940
75th Percentile	25,200	28,000	27,450	30,000	34,170	36,500
50th Percentile	24,500	26,700	26,000	29,000	31,500	35,000
25th Percentile	24,000	25,770	24,120	27,345	27,856	34,000
10th Percentile	22,500	23,000	23,754	25,325	22,601	30,600
Mean	24,322	26,352	26,186	28,832	31,037	34,634
Count	539	558	33	54	18	32
Standard Deviation	2,249	2,953	1,995	2,903	4,890	3,276

CERTIFIED GRADUATES

"Certified graduates", i.e., graduates completing undergraduate chemistry programs approved by the ACS's Committee on Professional Training, generally received higher starting salaries than non-certified graduates (see table A-10, page 25). One third of all BS chemistry graduates responding to the survey planned to study medicine. More than 70 percent of those studying medicine were non- certified (see table C-5, page 44). There was no difference in the unemployment rates for certified and non-certified graduates.

INTERPRETING SURVEY RESULTS

The numbers contained in these tables are estimates, derived from a sample rather than from a complete census. Thus, although they are the best estimates available, they are imperfect. Reasonable caution will prevent rash interpretations. An example of an estimate that demands caution is the difference between men's and women's salaries. Among inexperienced master's level chemical engineers, men had greater mean salaries than did women, but the difference is small and is not enough to support a statement that the mean for all men, including those not in the sample, is greater than that for all women. The technical notes give some guidance as to the degree of precision associated with various statistics in this report.

Table 3

POSTGRADUATION STATUS OF CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES: SUMMER 1982

Major and Employment Status	Bachelor's	Master's	Doctorates
CHEMISTRY			
Full-time employed:			
In chemistry or chemical engineering	24.0%	52.7%	62.9%
Outside chemistry or chemical engineering	8.7	5.9	3.2
Postdoctoral/grad. asst./other fellowship	25.7	26.0	30.7
Unemployed and seeking full-time employment	13.0	5.5	2.2
Unemployed and not seeking full-time employment	28.6	9.9	1.0
Total	100.0	100.0	100.0
Number of responses	2,024	254	410
CHEMICAL ENGINEERING			
Full-time employed:			
In chemistry or chemical engineering	52.2%	59.0%	93.2%
Outside chemistry or chemical engineering	10.9	6.4	1.7
Postdoctoral/grad. asst./other fellowship	9.6	23.7	3.4
Unemployed and seeking full-time employment	22.4	8.0	1.7
Unemployed and not seeking full-time employment	4.9	2.9	-
Total	100.0	100.0	100.0
Number of responses	1,384	173	59

Table 4

PLANS FOR ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES: FALL 1982

	Chemistry	Chemical Engineering
Plan further studies	67.5%	35.5%
Full-time	(56.1)	(16.2)
Part-time	(11.4)	(19.3)
Have no plans or no response	32.5	64.6
Total	100.0	100.0
Number of responses	2,085	1,395

Table 5

FIELD OF ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES WHO PLAN FURTHER STUDIES Fall 1982

Field of Study	Chemistry	Chemical Engineering
Full-time		
Chemistry or biochemistry	42.6%	2.2%
Chemical engineering	4.2	64.2
Medicine or dentistry	39.1	8.8
Business or management	2.0	8.8
All others	12.0	15.9
Total	100.0	100.0
Number of responses	1,156	226
Part-time		
Chemistry or biochemistry	41.9%	2.6%
Chemical engineering	8.1	30.6
Medicine or dentistry	4.3	-
Business or management	13.2	43.4
All others	32.5	23.4
Total	100.0	100.0
Number of responses	234	265

SCOPE AND METHOD

OBJECTIVES

The 1982 Starting Salary Survey is the 31st in the series of annual surveys now conducted by the Office of Manpower Studies of the American Chemical Society. Summaries of the results of these surveys appear annually in the "Chemical Careers" edition of the Chemical and Engineering News, this year published on October 18.

The primary objective of the survey is to gather data on the starting salaries and occupational status of new chemists and chemical engineers who graduated during the 1981-82 academic year. The survey covers bachelor's, master's, and doctoral degree recipients. In addition, the survey provides information on graduates' sex, citizenship, and minority classification.

METHOD OF COLLECTION AND TIMING OF SURVEY

Chemistry and chemical engineering departments provided names and addresses of students who graduated between July 1, 1981 and June 30,1982. The cooperating departments were the chemistry departments approved by the ACS and the chemical engineering departments approved by the American Institute of Chemical Engineers and the Engineer's Council for Professional Development.

During the summer of 1982, the Office of Manpower Studies mailed questionnaires to those graduates who had U.S. addresses and graduation dates from July, 1981 through June, 1982.

EXTENT OF COVERAGE

Survey questionnaires were mailed between July 26 and August 20 to approximately 14,000 graduates.* By the cutoff date of September 24, the Office of Manpower Studies had received 4,727 usable responses.

The table below contains estimates of the numbers of chemistry and chemical engineering graduates in 1982.

Projected Numbers of Degrees in
Chemistry and in Chemical Engineering, 1981-1982

	Bachelors	Masters	Doctorate
Chemistry	12,120	1,820	1,540
Chemical Engineering	7,320	1,280	317

* About 9,000 questionnaires were sent by first class mail, the remaining 5,000 by bulk mail. About 300 of those sent first class were returned because of insufficient addresses. Past experience indicates that about 90% of those sent by bulk mail reached the graduates.

The survey respondents represent about 18.0 percent of all 1982 chemistry graduates and about 18.0 percent of all 1982 chemical engineering graduates. No effort was made to examine the characteristics of graduates from departments that did not participate in the survey or of those graduates who did not mail back completed questionnaires.

DEFINITIONS

The questionnaire appears at the end of this report. Reponses to questions on post-graduation status were edited to eliminate multiple responses and to reflect as accurately as possible the employment status of the respondent.

The term "inexperienced" as used in the tables refers to those who have 12 months or less of prior professional work experience. Salary tables are based only on salaries of those who found full-time employment in chemistry or chemical engineering. Postdoctoral salaries are analyzed separately.

The Technical Notes present methods for estimating sampling error and also explain certain discrepancies among some of the tables.

GEOGRAPHIC REGIONS

PACIFIC

- Alaska
- California
- Hawaii
- Oregon
- Washington

MOUNTAIN

- Arizona
- Colorado
- Idaho
- Montana
- Nevada
- New Mexico
- Utah
- Wyoming

WEST NORTH CENTRAL

- Iowa
- Kansas
- Minnesota
- Missouri
- Nebraska
- North Dakota
- South Dakota

WEST SOUTH CENTRAL

- Arkansas
- Louisiana
- Oklahoma
- Texas

EAST NORTH CENTRAL

- Illinois
- Indiana
- Michigan
- Ohio
- Wisconsin

EAST SOUTH CENTRAL

- Alabama
- Kentucky
- Mississippi
- Tennessee

MIDDLE ATLANTIC

- New Jersey
- New York
- Pennsylvania

SOUTH ATLANTIC

- Delaware
- District of Columbia
- Florida
- Georgia
- Maryland
- North Carolina
- South Carolina
- Virginia
- West Virginia

NEW ENGLAND

- Connecticut
- Maine
- Massachusetts
- New Hampshire
- Rhode Island
- Vermont

TECHNICAL NOTES

DISCREPANCIES AMONG TABLES

Some pairs of tables contain totals that should be identical but are not. For example, two tables that present information about PhD respondents should show the same total number of PhDs. They might, however, show different totals. To illustrate, if one table groups the PhDs according to sex and the other groups them according to geographic region, the totals will differ unless the number who did not indicate their sex is the same as the number who did not indicate their geographic region.

ESTIMATES OF MEDIAN SALARIES

Median salaries displayed within the cells of the salary tables are sample medians and are therefore subject to sampling error. This error may be quite large, especially when the number of respondents in the corresponding cell is small. Therefore, median salaries in cells with fewer than 15 respondents should not be used to estimate their corresponding population medians. Similarly, tables showing the 25th and 75th salary percentiles, and those showing the 10th and 90th salary percentiles, should have at least 25 respondents and 40 respondents respectively.

COMPARING SALARIES

Often questions arise concerning women's salaries as compared with men's, or chemists' salaries as compared with chemical engineers'. These and similar comparisons require caution.

Statistical tests should be performed to determine whether observed differences in salaries of various sample groups could be mere chance occurrences resulting from peculiarities of the samples. Whether a difference in salaries is "statistically significant" depends not only on the magnitude of the difference but also on the sample sizes and the magnitudes of the sample standard deviations.

Statistical tests of significance may be found in Numerical and Statistical Techniques, by J. H. Pollard, Handbook of Tables for Probability and Statistics, published by the Chemical Rubber Company, and in other similar texts.

ESTIMATING SAMPLING ERROR FOR PERCENTS

Percents in this report are derived from the sample. If the entire population had received and returned questionnaires, most estimates would

be somewhat different. How much different? Although this question does not have an exact answer, the table below does provide some guidance. To use the table, find the column headed by the percent (p) derived from the sample, and find the row appropriate for the sample size (n). (Approximations for p and n may be used.) Note the number in that column and that row of the table.

This number from the body of the table measures the precision with which the sample percent estimates the percent of the entire population. Specifically, if this procedure is applied repeatedly, about 95 times out of 100 the population percent will differ from the sample percent by no more than the amount shown in the table.

Approximate Sampling Errors for Percents

n	p= 10% or 90%	p= 20% or 80%	p= 30% or 70%	p=40% or 60%	p= 50%
50	8.3%	11.1%	12.7%	13.6%	13.9%
100	5.9	7.8	9.0	9.6	9.8
200	4.2	5.5	6.4	6.8	6.9
500	2.6	3.5	4.0	4.3	4.4
1000	1.9	2.5	2.8	3.0	3.1
2000	1.3	1.8	2.0	2.1	2.2
5000	0.8	1.1	1.3	1.4	1.4
10000	0.6	0.8	0.9	1.0	1.0

In Table B-1 (page 32) for example, 258 respondents classified as chemists indicated their highest degree as PhD, and their employment status as employed full-time in chemistry or chemical engineering. The percent of this group who are women is listed at 13.6 percent (p=13.6). A "95% confidence interval" for this percent may be approximated by taking n and p to be about 200 and 10%. The table shows an approximate sampling error of 4.2%. Hence, the 95% confidence interval is 9.4% to 17.8%. If 100 similar estimates were made at this "level of confidence," about 95 of the true population percents would be contained in their respective intervals.

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Table A-1

SALARIES of FULL-TIME CHEMISTS by Experience and Degree
1982 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
<12 Months	17,000	24,120	32,400	20,550	21,000	- Median
	17,303	22,758	30,742	19,984	22,288	- Mean
	4,624	5,067	5,327	5,427	7,853	- Std Dev
	340	58	200	10	608	- Count
12-36 Months	17,500	22,948	30,500	14,000	20,100	
	17,712	22,582	27,875	14,000	20,425	
	4,991	4,547	6,731	2,828	6,504	
	85	30	24	2	141	
>36 Months	21,750	26,000	32,750	23,000	27,000	
	22,525	26,211	32,358	23,000	26,366	
	7,038	7,083	5,808	---	7,672	
	38	42	26	1	107	
No Response	18,840	26,000	29,000	---	26,000	
	18,840	26,000	26,650	---	24,326	
	6,845	---	7,648	---	7,152	
	2	1	4	0	7	
TOTAL	17,500	24,240	32,002	20,100	21,500	
	17,811	23,850	30,572	19,295	22,506	
	5,118	5,868	5,635	5,382	7,779	
	465	131	254	13	863	

Table A-2

SALARIES of FULL-TIME CHEMICAL ENGINEERS by Experience and Degree
1982 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
<12 Months	26,700	29,000	35,000	27,250	27,000	- Median
	26,352	28,832	34,634	27,711	26,998	- Mean
	2,953	2,903	3,276	4,518	3,548	- Std Dev
	558	54	32	24	668	- Count
12-36 Months	27,100	29,700	36,500	26,640	27,500	
	26,454	29,559	35,550	25,438	27,498	
	2,776	2,247	5,234	3,279	3,797	
	134	29	12	8	183	
>36 Months	27,400	30,920	32,250	35,040	28,400	
	27,256	32,775	33,100	35,040	30,449	
	2,022	7,184	8,137	---	6,195	
	19	15	8	1	43	
No Response	26,100	---	33,000	---	26,400	
	26,300	---	33,000	---	27,640	
	2,069	---	---	---	3,491	
	4	0	1	0	5	
TOTAL	27,000	29,020	35,000	27,000	27,000	
	26,395	29,651	34,579	27,382	27,269	
	2,895	3,924	4,659	4,459	3,831	
	715	98	53	33	899	

Table A-3

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS in PRIVATE INDUSTRY by Sex and Degree
1982 Starting Salary Survey

	HIGHEST DEGREE					
SEX	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Men	18,000	24,630	32,880	22,000	25,000	- Median
	17,921	23,689	32,446	21,140	24,987	- Mean
	3,959	4,442	2,471	6,693	7,687	- Std Dev
	142	34	143	5	324	- Count
Women	17,600	24,270	33,950	17,850	18,530	
	17,602	22,912	33,937	18,285	19,991	
	4,106	3,836	2,527	4,713	6,610	
	131	14	20	4	169	
TOTAL	18,000	24,330	33,000	20,100	22,000	
	17,768	23,463	32,629	19,871	23,274	
	4,026	4,249	2,518	5,744	7,704	
	273	48	163	9	493	

Table A-4

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS in PRIVATE INDUSTRY by Sex and Degree
1982 Starting Salary Survey

	HIGHEST DEGREE					
SEX	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Men	27,000	29,010	35,000	26,500	27,080	- Median
	26,556	29,226	35,534	27,231	27,338	- Mean
	2,737	3,036	2,022	5,091	3,570	- Std Dev
	356	40	25	17	438	- Count
Women	26,500	28,800	35,000	27,500	26,510	
	26,459	28,156	35,000	28,190	26,667	
	2,173	1,355	---	2,075	2,270	
	148	9	1	6	164	
TOTAL	26,890	29,000	35,000	27,000	27,000	
	26,527	29,030	35,513	27,481	27,155	
	2,582	2,823	1,984	4,473	3,280	
	504	49	26	23	602	

Table A-5

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Sex
1982 Starting Salary Survey

HIGHEST DEGREE	SEX Men	Women	Total	
Bachelors	17,000	17,000	17,000	-Median
	17,330	17,271	17,303	-Mean
	4,906	4,280	4,624	-Std Dev
	185	155	340	-Count
Masters	24,360	22,600	24,120	
	23,317	21,410	22,758	
	5,017	5,080	5,067	
	41	17	58	
Doctorate	32,000	33,550	32,400	
	30,654	31,327	30,742	
	5,123	6,623	5,327	
	174	26	200	
No Response	22,000	20,100	20,550	
	21,140	18,828	19,984	
	6,693	4,258	5,427	
	5	5	10	
TOTAL	23,000	18,000	21,000	
	23,708	19,456	22,288	
	8,040	6,628	7,853	
	405	203	608	

Table A-6

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer
1982 Starting Salary Survey

	HIGHEST DEGREE					
EMPLOYER	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	18,800	24,950	33,000	15,600	23,272	- Median
	18,861	24,287	32,625	18,608	24,727	- Mean
	3,762	3,572	2,320	7,428	7,258	- Std Dev
	199	42	154	5	400	- Count
Non-manufacturing Industry	15,500	26,300	34,000	23,850	18,000	
	16,164	26,300	32,773	23,850	20,542	
	3,525	---	6,303	212	7,754	
	14	1	4	2	21	
College or University	12,200	13,200	19,500	---	13,875	
	12,251	15,424	19,833	---	15,579	
	3,902	8,665	5,248	---	6,058	
	33	5	26	0	64	
Government	15,406	23,583	28,245	---	19,250	
	17,168	22,917	28,517	---	21,544	
	8,566	2,374	5,286	---	8,558	
	14	4	8	0	26	
Other	14,000	16,860	32,004	19,050	14,650	
	14,515	15,967	32,641	19,050	16,000	
	3,016	1,386	4,606	1,485	5,525	
	60	5	5	2	72	
No Response	19,550	25,000	27,500	21,000	20,540	
	19,397	25,000	28,667	21,000	20,798	
	4,646	---	2,021	---	5,248	
	20	1	3	1	25	
TOTAL	17,000	24,120	32,400	20,550	21,000	
	17,303	22,758	30,742	19,984	22,288	
	4,624	5,067	5,327	5,427	7,853	
	340	58	200	10	608	

Table A-7

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Men
1982 Starting Salary Survey

	HIGHEST DEGREE					
EMPLOYER	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	18,780	24,950	32,880	22,000	27,411	- Median
	18,822	24,438	32,478	21,333	26,220	- Mean
	3,710	3,776	2,294	9,018	7,152	- Std Dev
	105	30	135	3	273	- Count
Non-manufacturing Industry	15,500	26,300	33,000	23,700	18,000	
	16,063	26,300	30,697	23,700	20,815	
	3,669	---	5,808	---	7,493	
	8	1	3	1	13	
College or University	12,000	15,300	19,500	---	14,000	
	12,004	17,807	19,787	---	15,934	
	4,300	11,271	5,035	---	6,334	
	23	3	22	0	48	
Government	15,406	23,600	28,245	---	23,600	
	19,385	24,055	28,789	---	23,528	
	10,971	818	2,914	---	8,626	
	8	3	6	0	17	
Other	14,000	15,000	32,004	18,000	15,000	
	15,170	15,333	32,641	18,000	17,556	
	3,546	1,528	4,606	---	6,896	
	29	3	5	1	38	
No Response	18,800	25,000	27,500	---	21,870	
	19,187	25,000	28,667	---	21,328	
	4,168	---	2,021	---	5,350	
	12	1	3	0	16	
TOTAL	17,000	24,360	32,000	22,000	23,000	
	17,330	23,317	30,654	21,140	23,708	
	4,906	5,017	5,123	6,693	8,040	
	185	41	174	5	405	

Table A-8

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Women
1982 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	18,916	24,650	33,900	14,520	20,800	- Median
	18,905	23,912	33,671	14,520	21,518	- Mean
	3,838	3,124	2,290	1,527	6,417	- Std Dev
	94	12	19	2	127	- Count
Non-manufacturing Industry	15,900	---	39,000	24,000	18,400	
	16,300	---	39,000	24,000	20,100	
	3,663	---	---	---	8,670	
	6	0	1	1	8	
College or University	12,750	11,850	19,275	---	13,100	
	12,820	11,850	20,088	---	14,516	
	2,902	1,909	7,210	---	5,181	
	10	2	4	0	16	
Government	14,493	19,500	27,700	---	15,922	
	14,212	19,500	27,700	---	17,797	
	1,979	---	12,304	---	7,476	
	6	1	2	0	9	
Other	13,728	16,917	---	20,100	13,922	
	13,901	16,917	---	20,100	14,261	
	2,312	80	---	---	2,538	
	31	2	0	1	34	
No Response	19,950	---	---	21,000	20,400	
	19,713	---	---	21,000	19,856	
	5,577	---	---	---	5,234	
	8	0	0	1	9	
TOTAL	17,000	22,600	33,550	20,100	18,000	
	17,271	21,410	31,327	18,828	19,456	
	4,280	5,080	6,623	4,258	6,628	
	155	17	26	5	203	

Table A-9

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Geographic Region
1982 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Pacific	17,200	25,180	31,100	18,000	18,000	- Median
	17,433	25,180	29,600	18,000	20,133	- Mean
	6,179	1,160	6,862	---	7,832	- Std Dev
	38	2	10	1	51	- Count
Mountain	12,850	25,000	31,440	---	19,600	
	14,700	25,000	30,213	---	20,781	
	4,745	---	6,094	---	9,047	
	10	1	6	C	17	
West North Central	17,330	20,000	31,200	21,500	20,000	
	17,751	19,667	30,562	22,150	20,524	
	4,486	1,528	3,458	5,941	6,470	
	34	3	9	4	50	
West South Central	21,600	27,000	33,000	---	27,750	
	20,294	27,070	32,750	---	26,789	
	5,844	1,649	4,194	---	7,619	
	25	6	27	0	58	
East North Central	18,000	23,760	31,500	23,700	21,000	
	17,659	23,128	30,501	22,600	22,274	
	3,896	2,831	4,257	2,170	7,062	
	73	8	40	3	124	
East South Central	16,800	19,487	24,090	---	19,017	
	17,280	19,487	24,090	---	18,402	
	5,547	3,555	---	---	5,172	
	7	2	1	0	10	
Middle Atlantic	17,000	25,000	32,750	12,000	21,500	
	17,305	23,188	31,147	12,000	22,811	
	3,909	5,953	5,358	---	7,975	
	87	17	58	1	163	
South Atlantic	15,711	23,566	33,000	---	23,000	
	15,835	22,614	30,973	---	23,192	
	4,090	4,629	4,997	---	8,333	
	36	13	35	0	84	
New England	16,050	23,920	32,004	---	18,000	
	16,579	22,460	29,569	---	20,846	
	4,249	4,425	7,099	---	7,716	
	24	4	11	0	39	
No Response	13,840	10,600	15,000	13,440	13,720	
	13,253	10,600	17,267	13,440	13,830	
	3,551	3,677	4,818	---	4,061	
	6	2	3	1	12	
TOTAL	17,000	24,120	32,400	20,550	21,000	
	17,303	22,758	30,742	19,984	22,288	
	4,624	5,067	5,327	5,427	7,853	
	340	58	200	10	608	

Table A-10

SALARIES of INEXPERIENCED FULL-TIME B.S. CHEMISTS by Employer and Certification Status
1982 Starting Salary Survey

	CERTIFICATION			
EMPLOYER	Certi-fied	Non-certi.	TOTAL	
Manufacturing Industry	19,200	18,500	18,800	- Median
	19,302	18,140	18,900	- Mean
	3,864	3,755	3,858	- Std Dev
	142	75	217	- Count
Non-manufacturing Industry	17,400	14,750	15,500	
	17,225	14,750	16,164	
	3,578	3,190	3,525	
	8	6	14	
College or University	13,000	12,000	12,200	
	12,640	11,885	12,251	
	5,317	1,913	3,902	
	16	17	33	
Government	14,644	15,922	15,406	
	19,521	15,403	17,168	
	13,022	2,617	8,566	
	6	8	14	
Other	14,000	13,675	14,000	
	14,941	14,027	14,515	
	3,191	2,779	3,016	
	32	28	60	
No Response	---	20,000	20,000	
	---	20,000	20,000	
	---	566	566	
	0	2	2	
TOTAL	18,000	16,000	17,000	
	18,020	16,228	17,303	
	4,863	4,025	4,624	
	204	136	340	

TABLE A-11

SALARIES of INEXPERIENCED FULL-TIME EMPLOYED M.S. and PH.D. CHEMISTS by Degree Field
1982 Starting Salary Survey

	HIGHEST DEGREE			
DEGREE FIELD	M.S.	Ph.D.	TOTAL	
Chemistry, General	23,520	24,000	23,520	-Median
	19,361	24,000	19,907	-Mean
	10,396	12,728	10,347	-Std Dev
	15	2	17	-Count
Biochemistry	---	---	---	
	---	---	---	
	---	---	---	
	0	0	0	
Agricultural	24,000	---	24,000	
	24,000	---	24,000	
	---	---	---	
	1	0	1	
Analytical	22,000	32,502	28,000	
	19,471	30,367	26,389	
	7,219	6,306	8,454	
	23	40	63	
Inorganic	11,000	30,000	29,000	
	13,496	26,301	24,269	
	7,160	8,667	9,628	
	10	53	63	
Organic	21,500	31,000	27,873	
	18,226	26,243	24,517	
	8,217	8,956	9,374	
	28	102	130	
Pharmaceutical	---	---	---	
	---	---	---	
	---	---	---	
	0	0	0	
Physical	18,487	28,500	25,600	
	17,331	25,881	24,505	
	8,701	8,784	9,275	
	14	73	87	
Theoretical	---	21,400	21,400	
	---	19,521	19,521	
	---	5,238	5,238	
	0	10	10	
Polymer	25,450	32,900	30,650	
	25,450	30,353	29,128	
	778	8,259	7,346	
	2	6	8	
Chemistry, other	26,000	23,500	23,795	
	26,000	22,863	23,124	
	---	6,861	6,604	
	1	11	12	
TOTAL	20,500	30,000	26,500	
	18,373	26,436	24,498	
	8,305	8,563	9,165	
	94	297	391	

Table A-12

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Sex
1982 Starting Salary Survey

	SEX			
HIGHEST DEGREE	Men	Women	TOTAL	
Bachelors	27,000	26,400	26,700	- Median
	26,446	26,134	26,352	- Mean
	3,050	2,711	2,953	- Std Dev
	390	168	558	- Count
Masters	29,000	28,800	29,000	
	28,968	28,156	28,832	
	3,115	1,355	2,903	
	45	9	54	
Doctorate	35,000	28,500	35,000	
	35,252	28,667	34,634	
	2,209	6,252	3,276	
	29	3	32	
No Response	26,750	27,500	27,250	
	27,551	28,190	27,711	
	5,122	2,075	4,518	
	18	6	24	
TOTAL	27,080	26,500	27,000	
	27,253	26,339	26,998	
	3,780	2,766	3,548	
	482	186	668	

Table A-13

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer
1982 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	27,000	29,000	35,000	27,000	27,000	- Median
	26,695	29,339	35,574	28,103	27,382	- Mean
	2,512	2,841	2,000	3,816	3,244	- Std Dev
	439	42	25	20	526	- Count
Non-manufacturing Industry	26,000	27,500	34,000	27,500	26,000	
	25,787	27,220	34,000	27,500	26,129	
	1,762	2,322	---	0	2,115	
	47	5	1	2	55	
College or University	18,750	---	30,000	33,000	29,250	
	18,750	---	29,770	33,000	27,419	
	5,303	---	4,840	---	6,876	
	2	0	5	1	8	
Government	19,857	23,500	---	---	20,700	
	19,831	23,500	---	---	20,217	
	2,108	2,121	---	---	2,353	
	17	2	0	0	19	
Other	26,000	27,050	---	15,000	26,000	
	24,367	27,050	---	15,000	24,176	
	4,365	1,344	---	---	4,621	
	18	2	0	1	21	
No Response	27,000	29,000	36,100	---	27,900	
	27,434	29,167	36,100	---	27,789	
	3,871	473	---	---	3,938	
	35	3	1	0	39	
TOTAL	26,700	29,000	35,000	27,250	27,000	
	26,352	28,832	34,634	27,711	26,998	
	2,953	2,903	3,276	4,518	3,548	
	558	54	32	24	668	

Table A-14

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Men
1982 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing	27,000	29,300	35,250	26,500	27,200	- Median
Industry	26,710	29,672	35,598	28,028	27,570	- Mean
	2,673	3,017	2,040	4,271	3,532	- Std Dev
	315	34	24	15	388	- Count
Non-manufacturing	26,300	26,750	34,000	27,500	26,400	
Industry	25,865	26,525	34,000	27,500	26,219	
	1,974	1,992	---	---	2,346	
	29	4	1	1	35	
College or	18,750	---	32,400	33,000	31,200	
University	18,750	---	32,617	33,000	28,058	
	5,303	---	2,731	---	7,786	
	2	0	3	1	6	
Government	20,170	23,500	---	---	20,701	
	20,145	23,500	---	---	20,704	
	2,395	2,121	---	---	2,609	
	10	2	0	0	12	
Other	26,000	27,050	---	15,000	26,000	
	24,175	27,050	---	15,000	23,947	
	4,437	1,344	---	---	4,768	
	12	2	0	1	15	
No Response	28,100	29,000	36,100	---	28,250	
	28,236	29,167	36,100	---	28,646	
	3,715	473	---	---	3,744	
	22	3	1	0	26	
TOTAL	27,000	29,000	35,000	26,750	27,080	
	26,446	28,968	35,252	27,551	27,253	
	3,050	3,115	2,209	5,122	3,780	
	390	45	29	18	482	

Table A-15

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer -Women
1982 Starting Salary Survey

	HIGHEST DEGREE					
EMPLOYER	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing	26,580	28,500	35,000	27,500	26,900	- Median
Industry	26,657	27,925	35,000	28,328	26,852	- Mean
	2,058	1,245	---	2,288	2,168	- Std Dev
	124	8	1	5	138	- Count
Non-manfacturing	25,725	30,000	---	27,500	25,800	
Industry	25,661	30,000	---	27,500	25,970	
	1,398	---	---	---	1,679	
	18	1	0	1	20	
College oe	---	---	25,500	---	25,500	
University	---	---	25,500	---	25,500	
	---	---	4,243	---	4,243	
	0	0	2	0	2	
Government	19,857	---	---	---	19,857	
	19,382	---	---	---	19,382	
	1,686	---	---	---	1,686	
	7	0	0	0	7	
Other	26,000	---	---	---	26,000	
	24,750	---	---	---	24,750	
	4,603	---	---	---	4,603	
	6	0	0	0	6	
No Response	26,520	---	---	---	26,520	
	26,077	---	---	---	26,077	
	3,891	---	---	---	3,891	
	13	0	0	0	13	
TOTAL	26,400	28,800	28,500	27,500	26,500	
	26,134	28,156	28,667	28,190	26,339	
	2,711	1,355	6,252	2,075	2,766	
	168	9	3	6	186	

Table A-16

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Geographic Region and Degree
1982 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Pacific	27,100	28,700	34,500	29,000	28,000	- Median
	27,361	30,483	34,500	29,000	27,932	- Mean
	4,536	4,262	---	1,414	4,549	- Std Dev
	42	6	1	2	51	- Count
Mountain	27,600	---	---	28,500	27,600	
	27,271	---	---	28,500	27,339	
	2,082	---	---	---	2,041	
	17	0	0	1	18	
West North Central	26,260	27,300	35,450	25,500	26,260	
	25,892	27,300	35,450	25,500	26,165	
	2,343	2,121	---	---	2,688	
	40	2	1	1	44	
West South Central	27,600	29,650	35,000	28,000	28,000	
	27,537	29,075	35,550	30,053	28,270	
	2,441	3,174	2,030	5,175	3,291	
	112	12	8	8	140	
East North Central	27,000	28,200	34,100	26,000	27,200	
	26,482	28,880	33,700	25,340	27,043	
	2,434	1,781	3,346	6,533	3,314	
	96	5	8	5	114	
East South Central	27,600	28,000	---	---	27,700	
	26,393	28,000	---	---	26,500	
	3,545	---	---	---	3,441	
	14	1	0	0	15	
Middle Atlantic	26,200	29,000	34,600	27,000	26,520	
	25,751	29,294	34,750	27,210	26,579	
	2,647	2,740	1,476	1,586	3,340	
	141	18	8	4	171	
South Atlantic	26,300	28,800	36,900	---	26,400	
	25,512	27,929	34,470	---	26,284	
	2,488	1,797	6,986	---	3,600	
	68	7	5	0	80	
New England	25,800	24,000	34,000	26,000	25,900	
	24,584	25,120	34,000	25,700	25,033	
	4,767	1,940	---	1,967	4,570	
	25	3	1	3	32	
No Response	26,800	---	---	---	26,800	
	26,600	---	---	---	26,600	
	529	---	---	---	529	
	3	0	0	0	3	
TOTAL	26,700	29,000	35,000	27,250	27,000	
	26,352	28,832	34,634	27,711	26,998	
	2,953	2,903	3,276	4,518	3,548	
	558	54	32	24	668	

Table B-1

EMPLOYMENT STATUS of CHEMISTRY GRADUATES by Degree and Sex
1982 Starting Salary Survey

EMPLOYMENT STATUS	Bachelors SEX Men	Bachelors SEX Women	Bachelors No Response	Bachelors TOTAL	Masters Men	Masters Women	Masters No Response	Masters TOTAL	Doctorate Men	Doctorate Women	Doctorate No Response	Doctorate TOTAL	
Full-time in Chemistry	287	198	0	485	94	40	0	134	222	35	1	258	-Count
	59.2%	40.8%	0.0%	100.0%	70.1%	29.9%	0.0%	100.0%	86.0%	13.6%	0.4%	100.0%	-% of Row
	20.7%	28.7%	0.0%	23.3%	55.0%	47.6%	0.0%	52.3%	62.0%	67.3%	100.0%	62.8%	-% of Col
Full-time Non-Chemistry	123	53	0	176	9	6	0	15	11	2	0	13	
	69.9%	30.1%	0.0%	100.0%	60.0%	40.0%	0.0%	100.0%	84.6%	15.4%	0.0%	100.0%	
	8.9%	7.7%	0.0%	8.4%	5.3%	7.1%	0.0%	5.9%	3.1%	3.8%	0.0%	3.2%	
Assistantship, Postdoctoral or Other Fellowship	359	161	1	521	45	21	0	66	113	13	0	126	
	68.9%	30.9%	0.2%	100.0%	68.2%	31.8%	0.0%	100.0%	89.7%	10.3%	0.0%	100.0%	
	25.9%	23.3%	12.5%	25.0%	26.3%	25.0%	0.0%	25.8%	31.6%	25.0%	0.0%	30.7%	
Unemployed and Seeking Employment	153	110	0	263	9	5	0	14	7	2	0	9	
	58.2%	41.8%	0.0%	100.0%	64.3%	35.7%	0.0%	100.0%	77.8%	22.2%	0.0%	100.0%	
	11.0%	15.9%	0.0%	12.6%	5.3%	6.0%	0.0%	5.5%	2.0%	3.8%	0.0%	2.2%	
Unemployed and Not Seeking Employment	421	152	6	579	13	11	1	25	4	0	0	4	
	72.7%	26.3%	1.0%	100.0%	52.0%	44.0%	4.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	30.4%	22.0%	75.0%	27.8%	7.6%	13.1%	100.0%	9.8%	1.1%	0.0%	0.0%	1.0%	
No Response	43	17	1	61	1	1	0	2	1	0	0	1	
	70.5%	27.9%	1.6%	100.0%	50.0%	50.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	3.1%	2.5%	12.5%	2.9%	0.6%	1.2%	0.0%	0.8%	0.3%	0.0%	0.0%	0.2%	
TOTAL	1,386	691	8	2,085	171	84	1	256	358	52	1	411	
	66.5%	33.1%	0.4%	100.0%	66.8%	32.8%	0.4%	100.0%	87.1%	12.7%	0.2%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
ADVANCED STUDY PLANS FALL 1982													
Full-Time	840	327	3	1,170	61	26	0	87	23	1	0	24	
	71.8%	27.9%	0.3%	100.0%	70.1%	29.9%	0.0%	100.0%	95.8%	4.2%	0.0%	100.0%	
	60.6%	47.3%	37.5%	56.1%	35.7%	31.0%	0.0%	34.0%	6.4%	1.9%	0.0%	5.8%	
Part-Time	158	80	0	238	22	14	0	36	14	3	0	17	
	66.4%	33.6%	0.0%	100.0%	61.1%	38.9%	0.0%	100.0%	82.4%	17.6%	0.0%	100.0%	
	11.4%	11.6%	0.0%	11.4%	12.9%	16.7%	0.0%	14.1%	3.9%	5.8%	0.0%	4.1%	
No Plans	360	268	2	630	87	42	0	129	306	47	1	354	
	57.1%	42.5%	0.3%	100.0%	67.4%	32.6%	0.0%	100.0%	86.4%	13.3%	0.3%	100.0%	
	26.0%	38.8%	25.0%	30.2%	50.9%	50.0%	0.0%	50.4%	85.5%	90.4%	100.0%	86.1%	
No Response	28	16	3	47	1	2	1	4	15	1	0	16	
	59.6%	34.0%	6.4%	100.0%	25.0%	50.0%	25.0%	100.0%	93.8%	6.3%	0.0%	100.0%	
	2.0%	2.3%	37.5%	2.3%	0.6%	2.4%	100.0%	1.6%	4.2%	1.9%	0.0%	3.9%	
TOTAL	1,386	691	8	2,085	171	84	1	256	358	52	1	411	
	66.5%	33.1%	0.4%	100.0%	66.8%	32.8%	0.4%	100.0%	87.1%	12.7%	0.2%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-2

EMPLOYMENT STATUS of B.S. CHEMISTRY GRADUATES by Certification Status
1982 Starting Salary Survey

EMPLOYMENT STATUS	CERTIFICATION: Certified	Non-Cert.	TOTAL	
Full-time in Chemistry	290	195	485	-Count
	59.8%	40.2%	100.0%	-% of Row
	26.7%	19.5%	23.3%	-% of Col
Full-time in Non-Chemistry	79	97	176	
	44.9%	55.1%	100.0%	
	7.3%	9.7%	8.4%	
Assistantship, Postdoctoral, or Other Fellowship	362	159	521	
	69.5%	30.5%	100.0%	
	33.3%	15.9%	25.0%	
Unemployed and Seeking Employment	135	129	264	
	51.1%	48.9%	100.0%	
	12.4%	12.9%	12.7%	
Unemployed and Not Seeking Employment	196	383	579	
	33.9%	66.1%	100.0%	
	18.0%	38.3%	27.8%	
No Response	24	37	61	
	39.3%	60.7%	100.0%	
	2.2%	3.7%	2.9%	
TOTAL	1,086	1,000	2,086	
	52.1%	47.9%	100.0%	
	100.0%	100.0%	100.0%	
ADVANCED STUDY PLANS FALL 1982				
Full-Time	597	573	1,170	
	51.0%	49.0%	100.0%	
	55.0%	57.3%	56.1%	
Part-Time	127	111	238	
	53.4%	46.6%	100.0%	
	11.7%	11.1%	11.4%	
No Plans	342	289	631	
	54.2%	45.8%	100.0%	
	31.5%	28.9%	30.2%	
No Response	20	27	47	
	42.6%	57.4%	100.0%	
	1.8%	2.7%	2.3%	
TOTAL	1,086	1,000	2,086	
	52.1%	47.9%	100.0%	
	100.0%	100.0%	100.0%	

Table B-3

EMPLOYMENT STATUS of M.S. AND PH.D. CHEMISTS by Degree Field
1982 Starting Salary Survey

Masters

EMPLOYMENT STATUS / DEGREE FIELD	General Chem.	Bio-chem.	Agri-cultural	Analyti-cal	In-organic	Organic	Pharm.	Physical	Theore-tical	Polymer	Other Chem.	TOTAL	
Full-time in Chemistry	32	0	2	35	7	35	0	13	1	6	3	134	-Count
	23.9%	0.0%	1.5%	26.1%	5.2%	26.1%	0.0%	9.7%	0.7%	4.5%	2.2%	100.0%	-% of Row
	61.5%	***.*%	100.0%	66.0%	26.9%	48.6%	0.0%	41.9%	50.0%	60.0%	50.0%	52.3%	-% of Col
Full-time in Non-Chemistry	1	0	0	1	3	7	1	2	0	0	0	15	
	6.7%	0.0%	0.0%	6.7%	20.0%	46.7%	6.7%	13.3%	0.0%	0.0%	0.0%	100.0%	
	1.9%	***.*%	0.0%	1.9%	11.5%	9.7%	50.0%	6.5%	0.0%	0.0%	0.0%	5.9%	
Assistantship, Postdoctoral, or Other Fellowship	12	0	0	13	8	17	0	12	0	3	1	66	
	18.2%	0.0%	0.0%	19.7%	12.1%	25.8%	0.0%	18.2%	0.0%	4.5%	1.5%	100.0%	
	23.1%	***.*%	0.0%	24.5%	30.8%	23.6%	0.0%	38.7%	0.0%	30.0%	16.7%	25.8%	
Unemployed and Seeking Employment	1	0	0	2	2	6	1	1	1	0	0	14	
	7.1%	0.0%	0.0%	14.3%	14.3%	42.9%	7.1%	7.1%	7.1%	0.0%	0.0%	100.0%	
	1.9%	***.*%	0.0%	3.8%	7.7%	8.3%	50.0%	3.2%	50.0%	0.0%	0.0%	5.5%	
Unemployed and Not Seeking Employment	6	0	0	2	5	7	0	2	0	1	2	25	
	24.0%	0.0%	0.0%	8.0%	20.0%	28.0%	0.0%	8.0%	0.0%	4.0%	8.0%	100.0%	
	11.5%	***.*%	0.0%	3.8%	19.2%	9.7%	0.0%	6.5%	0.0%	10.0%	33.3%	9.8%	
No Response	0	0	0	0	1	0	0	1	0	0	0	2	
	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	100.0%	
	0.0%	0.0%	3.8%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	***.*%	***.*%	0.8%	
TOTAL	52	0	2	53	26	72	2	31	2	10	6	256	
	20.3%	0.0%	0.8%	20.7%	10.2%	28.1%	0.8%	12.1%	0.8%	3.9%	2.3%	100.0%	
	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Doctorate

Full-time in Chemistry	1	0	0	52	44	91	0	56	2	7	5	258	-Count
	0.4%	0.0%	0.0%	20.2%	17.1%	35.3%	0.0%	21.7%	0.8%	2.7%	1.9%	100.0%	-% of Row
	25.0%	***.*%	***.*%	82.5%	63.8%	62.3%	***.*%	58.3%	18.2%	70.0%	41.7%	62.8%	-% of Col
Full-time in Non-Chemistry	0	0	0	3	0	3	0	6	0	0	1	13	
	0.0%	0.0%	0.0%	23.1%	0.0%	23.1%	0.0%	46.2%	0.0%	0.0%	7.7%	100.0%	
	0.0%	***.*%	***.*%	4.8%	0.0%	2.1%	***.*%	6.3%	0.0%	0.0%	8.3%	3.2%	
Assistantship, Postdoctoral, or Other Fellowship	2	0	0	8	21	46	0	32	9	2	6	126	
	1.6%	0.0%	0.0%	6.3%	16.7%	36.5%	0.0%	25.4%	7.1%	1.6%	4.8%	100.0%	
	50.0%	***.*%	***.*%	12.7%	30.4%	31.5%	***.*%	33.3%	81.8%	20.0%	50.0%	30.7%	
Unemployed and Seeking Employment	0	0	0	0	3	4	0	1	0	1	0	9	
	0.0%	0.0%	0.0%	0.0%	33.3%	44.4%	0.0%	11.1%	0.0%	11.1%	0.0%	100.0%	
	0.0%	***.*%	***.*%	0.0%	4.3%	2.7%	***.*%	1.0%	0.0%	10.0%	0.0%	2.2%	
Unemployed and Not Seeking Employment	1	0	0	0	1	1	0	1	0	0	0	4	
	25.0%	0.0%	0.0%	0.0%	25.0%	25.0%	0.0%	25.0%	0.0%	0.0%	0.0%	100.0%	
	25.0%	***.*%	***.*%	0.0%	1.4%	0.7%	***.*%	1.0%	0.0%	0.0%	0.0%	1.0%	
No Response	0	0	0	0	0	1	0	0	0	0	0	1	
	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0.0%	***.*%	***.*%	0.0%	0.0%	0.7%	***.*%	0.0%	0.0%	0.0%	0.0%	0.2%	
TOTAL	4	0	0	63	69	146	0	96	11	10	12	411	
	1.0%	0.0%	0.0%	15.3%	16.8%	35.5%	0.0%	23.4%	2.7%	2.4%	2.9%	100.0%	
	100.0%	***.*%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-4

EMPLOYMENT STATUS of CHEMISTRY GRADUATES by Citizenship and Degree
1982 Starting Salary Survey

EMPLOYMENT STATUS	Bachelors CITIZENSHIP: US Citizen	Permanent Resident	Other	No Response	TOTAL	Masters: US Citizen	Permanent Resident	Other	No Response	TOTAL	Doctorate: US Citizen	Permanent Resident	Other	No Response	TOTAL
Full-time in Chemistry	471	10	1	3	485	129	4	1	0	134	236	12	9	1	258 -Count
	97.1%	2.1%	0.2%	0.6%	100.0%	96.3%	3.0%	0.7%	0.0%	100.0%	91.5%	4.7%	3.5%	0.4%	100.0% -% of Row
	23.3%	26.3%	14.3%	20.0%	23.3%	54.9%	36.4%	11.1%	0.0%	52.3%	65.6%	60.0%	31.0%	50.0%	62.8% -% of Col
Full-time in Non-Chemistry	173	2	0	1	176	15	0	0	0	15	12	0	1	0	13
	98.3%	1.1%	0.0%	0.6%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	92.3%	0.0%	7.7%	0.0%	100.0%
	8.5%	5.3%	0.0%	6.7%	8.4%	6.4%	0.0%	0.0%	0.0%	5.9%	3.3%	0.0%	3.4%	0.0%	3.2%
Assistantship, Postdoctoral or Other Fellowship	510	5	3	3	521	57	3	6	0	66	100	6	19	1	126
	97.9%	1.0%	0.6%	0.6%	100.0%	86.4%	4.5%	9.1%	0.0%	100.0%	79.4%	4.8%	15.1%	0.8%	100.0%
	25.2%	13.2%	42.9%	20.0%	25.0%	24.3%	27.3%	66.7%	0.0%	25.8%	27.8%	30.0%	65.5%	50.0%	30.7%
Unemployed and Seeking Employment	257	5	0	1	263	12	2	0	0	14	8	1	0	0	9
	97.7%	1.9%	0.0%	0.4%	100.0%	85.7%	14.3%	0.0%	0.0%	100.0%	88.9%	11.1%	0.0%	0.0%	100.0%
	12.7%	13.2%	0.0%	6.7%	12.6%	5.1%	18.2%	0.0%	0.0%	5.5%	2.2%	5.0%	0.0%	0.0%	2.2%
Unemployed and Not Seeking Employment	555	15	3	6	579	21	1	2	1	25	3	1	0	0	4
	95.9%	2.6%	0.5%	1.0%	100.0%	84.0%	4.0%	8.0%	4.0%	100.0%	75.0%	25.0%	0.0%	0.0%	100.0%
	27.4%	39.5%	42.9%	40.0%	27.8%	8.9%	9.1%	22.2%	100.0%	9.8%	0.8%	5.0%	0.0%	0.0%	1.0%
No Response	59	1	0	1	61	1	1	0	0	2	1	0	0	0	1
	96.7%	1.6%	0.0%	1.6%	100.0%	50.0%	50.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	2.9%	2.6%	0.0%	6.7%	2.9%	0.4%	9.1%	0.0%	0.0%	0.8%	0.3%	0.0%	0.0%	0.0%	0.2%
TOTAL	2,025	38	7	15	2,085	235	11	9	1	256	360	20	29	2	411
	97.1%	1.8%	0.3%	0.7%	100.0%	91.8%	4.3%	3.5%	0.4%	100.0%	87.6%	4.9%	7.1%	0.5%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
ADVANCED STUDY PLANS FALL 1982															
Full-time	1,134	22	6	8	1,170	77	5	5	0	87	20	1	3	0	24 -Count
	96.9%	1.9%	0.5%	0.7%	100.0%	88.5%	5.7%	5.7%	0.0%	100.0%	83.3%	4.2%	12.5%	0.0%	100.0% -% of Row
	56.0%	57.9%	85.7%	53.3%	56.1%	32.8%	45.5%	55.6%	0.0%	34.0%	5.6%	5.0%	10.3%	0.0%	5.8% -% of Col
Part-Time	228	7	1	2	238	31	3	2	0	36	16	1	0	0	17
	95.8%	2.9%	0.4%	0.8%	100.0%	86.1%	8.3%	5.6%	0.0%	100.0%	94.1%	5.9%	0.0%	0.0%	100.0%
	11.3%	18.4%	14.3%	13.3%	11.4%	13.2%	27.3%	22.2%	0.0%	14.1%	4.4%	5.0%	0.0%	0.0%	4.1%
No Plans	619	9	0	2	630	124	3	2	0	129	313	18	21	2	354
	98.3%	1.4%	0.0%	0.3%	100.0%	96.1%	2.3%	1.6%	0.0%	100.0%	88.4%	5.1%	5.9%	0.6%	100.0%
	30.6%	23.7%	0.0%	13.3%	30.2%	52.8%	27.3%	22.2%	0.0%	50.4%	86.9%	90.0%	72.4%	100.0%	86.1%
No Response	44	0	0	3	47	3	0	0	1	4	11	0	5	0	16
	93.6%	0.0%	0.0%	6.4%	100.0%	75.0%	0.0%	0.0%	25.0%	100.0%	68.8%	0.0%	31.3%	0.0%	100.0%
	2.2%	0.0%	0.0%	20.0%	2.3%	1.3%	0.0%	0.0%	100.0%	1.6%	3.1%	0.0%	17.2%	0.0%	3.9%
TOTAL	2,025	38	7	15	2,085	235	11	9	1	256	360	20	29	2	411
	97.1%	1.8%	0.3%	0.7%	100.0%	91.8%	4.3%	3.5%	0.4%	100.0%	87.6%	4.9%	7.1%	0.5%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table B-5

EMPLOYMENT STATUS of MINORITY CHEMISTRY GRADUATES by Degree
1982 Starting Salary Survey

	HIGHEST DEGREE					
EMPLOYMENT STATUS	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Full-time in Chemistry	37	13	24	2	76	-Count
	48.7%	17.1%	31.6%	2.6%	100.0%	-% of Row
	19.4%	38.2%	51.1%	66.7%	27.6%	-% of Col
Full-time in Non-Chemistry	19	1	2	1	23	
	82.6%	4.3%	8.7%	4.3%	100.0%	
	9.9%	2.9%	4.3%	33.3%	8.4%	
Assistantship, Postdoctoral or Other Fellowship	35	12	20	0	67	
	52.2%	17.9%	29.9%	0.0%	100.0%	
	18.3%	35.3%	42.6%	0.0%	24.4%	
Unemployed and Seeking Employment	34	3	1	0	38	
	89.5%	7.9%	2.6%	0.0%	100.0%	
	17.8%	8.8%	2.1%	0.0%	13.8%	
Unemployed and Not Seeking Employment	58	5	0	0	63	
	92.1%	7.9%	0.0%	0.0%	100.0%	
	30.4%	14.7%	0.0%	0.0%	22.9%	
No Response	8	0	0	0	8	
	100.0%	0.0%	0.0%	0.0%	100.0%	
	4.2%	0.0%	0.0%	0.0%	2.9%	
TOTAL	191	34	47	3	275	
	69.5%	12.4%	17.1%	1.1%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	
ADVANCE STUDY PLANS FALL 1982						
Full-Time	106	14	3	0	123	
	86.2%	11.4%	2.4%	0.0%	100.0%	
	55.5%	41.2%	6.4%	0.0%	44.7%	
Part-Time	29	6	1	1	37	
	78.4%	16.2%	2.7%	2.7%	100.0%	
	15.2%	17.6%	2.1%	33.3%	13.5%	
No Plans	48	12	40	2	102	
	47.1%	11.8%	39.2%	2.0%	100.0%	
	25.1%	35.3%	85.1%	66.7%	37.1%	
No Response	8	2	3	0	13	
	61.5%	15.4%	23.1%	0.0%	100.0%	
	4.2%	5.9%	6.4%	0.0%	4.7%	
TOTAL	191	34	47	3	275	
	69.5%	12.4%	17.1%	1.1%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-6

EMPLOYMENT STATUS of CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1982 Starting Salary Survey

EMPLOYMENT STATUS	Bachelors SEX Men	Women	No Response	TOTAL	Masters Men	Women	No Response	TOTAL	Doctorate Men	Women	No Response	TOTAL
Full-time in Chemistry	521	201	0	722	83	19	0	102	51	4	0	55 -Count
	72.2%	27.8%	0.0%	100.0%	81.4%	18.6%	0.0%	100.0%	92.7%	7.3%	0.0%	100.0% -% of Row
	49.6%	59.3%	0.0%	51.8%	58.9%	54.3%	***.*%	58.0%	92.7%	100.0%	***.*%	93.2% -% of Col
Full-time in Non-Chemistry	122	29	0	151	11	0	0	11	1	0	0	1
	80.8%	19.2%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	11.6%	8.6%	0.0%	10.8%	7.8%	0.0%	***.*%	6.3%	1.8%	0.0%	***.*%	1.7%
Assistantship, Postodoctoral or Other Fellowship	110	23	0	133	29	12	0	41	2	0	0	2
	82.7%	17.3%	0.0%	100.0%	70.7%	29.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	10.5%	6.8%	0.0%	9.5%	20.6%	34.3%	***.*%	23.3%	3.6%	0.0%	***.*%	3.4%
Unemployed and Seeking Employment	235	70	5	310	11	3	0	14	1	0	0	1
	75.8%	22.6%	1.6%	100.0%	78.6%	21.4%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	22.4%	20.6%	83.3%	22.2%	7.8%	8.6%	***.*%	8.0%	1.8%	0.0%	***.*%	1.7%
Unemployed and Not Seeking Employment	57	10	1	68	4	1	0	5	0	0	0	0
	83.8%	14.7%	1.5%	100.0%	80.0%	20.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%
	5.4%	2.9%	16.7%	4.9%	2.8%	2.9%	***.*%	2.8%	0.0%	0.0%	***.*%	0.0%
No Response	5	6	0	11	3	0	0	3	0	0	0	0
	45.5%	54.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%
	0.5%	1.8%	0.0%	0.8%	2.1%	0.0%	***.*%	1.7%	0.0%	0.0%	***.*%	0.0%
TOTAL	1,050	339	6	1,395	141	35	0	176	55	4	0	59
	75.3%	24.3%	0.4%	100.0%	80.1%	19.9%	0.0%	100.0%	93.2%	6.8%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%
ADVANCED STUDY PLANS												
Full-Time	190	36	0	226	37	14	0	51	0	0	0	0 -Count
	84.1%	15.9%	0.0%	100.0%	72.5%	27.5%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*% -% of Row
	18.1%	10.6%	0.0%	16.2%	26.2%	40.0%	***.*%	29.0%	0.0%	0.0%	***.*%	0.0% -% of Col
Part-Time	211	58	0	269	19	1	0	20	2	0	0	2
	78.4%	21.6%	0.0%	100.0%	95.0%	5.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	20.1%	17.1%	0.0%	19.3%	13.5%	2.9%	***.*%	11.4%	3.6%	0.0%	***.*%	3.4%
No Plans	627	240	3	870	84	20	0	104	52	4	0	56
	72.1%	27.6%	0.3%	100.0%	80.8%	19.2%	0.0%	100.0%	92.9%	7.1%	0.0%	100.0%
	59.7%	70.8%	50.0%	62.4%	59.6%	57.1%	***.*%	59.1%	94.5%	100.0%	***.*%	94.9%
No Response	22	5	3	30	1	0	0	1	1	0	0	1
	73.3%	16.7%	10.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	2.1%	1.5%	50.0%	2.2%	0.7%	0.0%	***.*%	0.6%	1.8%	0.0%	***.*%	1.7%
TOTAL	1,050	339	6	1,395	141	35	0	176	55	4	0	59
	75.3%	24.3%	0.4%	100.0%	80.1%	19.9%	0.0%	100.0%	93.2%	6.8%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%

Table B-7

EMPLOYMENT STATUS of CHEMICAL ENGINEERING GRADUATES by Citizenship and Degree
1982 Starting Salary Survey

EMPLOYMENT STATUS	CITIZENSHIP															
	Bachelors					Masters					Doctorate					
	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	
Full-time in Chemistry	709	10	1	2	722	98	4	0	0	102	33	16	6	0	55	-Count
	98.2%	1.4%	0.1%	0.3%	100.0%	96.1%	3.9%	0.0%	0.0%	100.0%	60.0%	29.1%	10.9%	0.0%	100.0%	-% of Row
	52.4%	43.5%	10.0%	20.0%	51.8%	67.1%	36.4%	0.0%	***.*%	58.0%	91.7%	100.0%	85.7%	***.*%	93.2%	-% of Col
Full-time in Non-Chemistry	150	1	0	0	151	8	0	3	0	11	1	0	0	0	1	
	99.3%	0.7%	0.0%	0.0%	100.0%	72.7%	0.0%	27.3%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	
	11.1%	4.3%	0.0%	0.0%	10.8%	5.5%	0.0%	15.8%	***.*%	6.3%	2.8%	0.0%	0.0%	***.*%	1.7%	
Assistantship, Postdoctoral or Other Fellowship	127	2	3	1	133	30	2	9	0	41	1	0	1	0	2	
	95.5%	1.5%	2.3%	0.8%	100.0%	73.2%	4.9%	22.0%	0.0%	100.0%	50.0%	0.0%	50.0%	0.0%	100.0%	
	9.4%	8.7%	30.0%	10.0%	9.5%	20.5%	18.2%	47.4%	***.*%	23.3%	2.8%	0.0%	14.3%	***.*%	3.4%	
Unemployed and Seeking Employment	290	10	4	6	310	5	5	4	0	14	1	0	0	0	1	
	93.5%	3.2%	1.3%	1.9%	100.0%	35.7%	35.7%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	
	21.4%	43.5%	40.0%	60.0%	22.2%	3.4%	45.5%	21.1%	***.*%	8.0%	2.8%	0.0%	0.0%	***.*%	1.7%	
Unemployed and Not Seeking Employment	65	0	2	1	68	3	0	2	0	5	0	0	0	0	0	
	95.6%	0.0%	2.9%	1.5%	100.0%	60.0%	0.0%	40.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	
	4.8%	0.0%	20.0%	10.0%	4.9%	2.1%	0.0%	10.5%	***.*%	2.8%	0.0%	0.0%	0.0%	***.*%	0.0%	
No Response	11	0	0	0	11	2	0	1	0	3	0	0	0	0	0	
	100.0%	0.0%	0.0%	0.0%	100.0%	66.7%	0.0%	33.3%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.8%	0.0%	0.0%	0.0%	0.8%	1.4%	0.0%	5.3%	***.*%	1.7%	0.0%	0.0%	0.0%	***.*%	0.0%	
TOTAL	1,352	23	10	10	1,395	146	11	19	0	176	36	16	7	0	59	
	96.9%	1.6%	0.7%	0.7%	100.0%	83.0%	6.3%	10.8%	0.0%	100.0%	61.0%	27.1%	11.9%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	
ADVANCED STUDY PLANS FALL 1982																
Full-Time	215	4	6	1	226	34	3	14	0	51	0	0	0	0	0	-Count
	95.1%	1.8%	2.7%	0.4%	100.0%	66.7%	5.9%	27.5%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	-% of Row
	15.9%	17.4%	60.0%	10.0%	16.2%	23.3%	27.3%	73.7%	***.*%	29.0%	0.0%	0.0%	0.0%	***.*%	0.0%	-% of Col
Part-Time	261	6	2	0	269	18	1	1	0	20	1	1	0	0	2	
	97.0%	2.2%	0.7%	0.0%	100.0%	90.0%	5.0%	5.0%	0.0%	100.0%	50.0%	50.0%	0.0%	0.0%	100.0%	
	19.3%	26.1%	20.0%	0.0%	19.3%	12.3%	9.1%	5.3%	***.*%	11.4%	2.8%	6.3%	0.0%	***.*%	3.4%	
No Plans	851	13	2	4	870	93	7	4	0	104	35	14	7	0	56	
	97.8%	1.5%	0.2%	0.5%	100.0%	89.4%	6.7%	3.8%	0.0%	100.0%	62.5%	25.0%	12.5%	0.0%	100.0%	
	62.9%	56.5%	20.0%	40.0%	62.4%	63.7%	63.6%	21.1%	***.*%	59.1%	97.2%	87.5%	100.0%	***.*%	94.9%	
No Response	25	0	0	5	30	1	0	0	0	1	0	1	0	0	1	
	83.3%	0.0%	0.0%	16.7%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	100.0%	
	1.8%	0.0%	0.0%	50.0%	2.2%	0.7%	0.0%	0.0%	***.*%	0.6%	0.0%	6.3%	0.0%	***.*%	1.7%	
TOTAL	1,352	23	10	10	1,395	146	11	19	0	176	36	16	7	0	59	
	96.9%	1.6%	0.7%	0.7%	100.0%	83.0%	6.3%	10.8%	0.0%	100.0%	61.0%	27.1%	11.9%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table B-8

EMPLOYMENT STATUS of MINORITY CHEMICAL ENGINEERING GRADUATES by Degree
1982 Starting Salary Survey

	HIGHEST DEGREE					
EMPLOYMENT STATUS	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Full-time in Chemistry	48	10	20	3	81	-Count
	59.3%	12.3%	24.7%	3.7%	100.0%	-% of Row
	41.4%	27.0%	95.2%	60.0%	45.3%	-% of Col
Full-time in Non-Chemistry	15	3	0	1	19	
	78.9%	15.8%	0.0%	5.3%	100.0%	
	12.9%	8.1%	0.0%	20.0%	10.6%	
Assistantship, Postdoctoral or Other Fellowship	12	13	1	0	26	
	46.2%	50.0%	3.8%	0.0%	100.0%	
	10.3%	35.1%	4.8%	0.0%	14.5%	
Unemployed and Seeking Employment	30	8	0	0	38	
	78.9%	21.1%	0.0%	0.0%	100.0%	
	25.9%	21.6%	0.0%	0.0%	21.2%	
Unemployed and Not Seeking Employment	10	2	0	1	13	
	76.9%	15.4%	0.0%	7.7%	100.0%	
	8.6%	5.4%	0.0%	20.0%	7.3%	
No Response	1	1	0	0	2	
	50.0%	50.0%	0.0%	0.0%	100.0%	
	0.9%	2.7%	0.0%	0.0%	1.1%	
TOTAL	116	37	21	5	179	
	64.8%	20.7%	11.7%	2.8%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

ADVANCED STUDY PLANS
FALL 1982

Full-Time	27	19	0	2	48
	56.3%	39.6%	0.0%	4.2%	100.0%
	23.3%	51.4%	0.0%	40.0%	26.8%
Part-Time	27	4	0	1	32
	84.4%	12.5%	0.0%	3.1%	100.0%
	23.3%	10.8%	0.0%	20.0%	17.9%
No Plans	59	14	20	2	95
	62.1%	14.7%	21.1%	2.1%	100.0%
	50.9%	37.8%	95.2%	40.0%	53.1%
No Response	3	0	1	0	4
	75.0%	0.0%	25.0%	0.0%	100.0%
	2.6%	0.0%	4.8%	0.0%	2.2%
TOTAL	116	37	21	5	179
	64.8%	20.7%	11.7%	2.8%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%

Table C-1

FIELD of ADVANCED STUDIES of CHEMISTRY GRADUATES WHO PLAN FULL-TIME or PART-TIME STUDIES in FALL 1982 by Degree and Sex
1982 Starting Salary Survey

	Bachelors				Masters				Doctorate				
SEX													
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	352	166	0	518	55	22	0	77	16	1	0	17	-Count
	68.0%	32.0%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	94.1%	5.9%	0.0%	100.0%	-% of Row
	35.3%	40.8%	0.0%	36.8%	66.3%	55.0%	***.*%	62.6%	43.2%	25.0%	***.*%	41.5%	-% of Col
Other Physical Science	27	9	1	37	5	1	0	6	2	0	0	2	
	73.0%	24.3%	2.7%	100.0%	83.3%	16.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.7%	2.2%	33.3%	2.6%	6.0%	2.5%	***.*%	4.9%	5.4%	0.0%	***.*%	4.9%	
Chemical Engineering	53	15	0	68	2	2	0	4	3	0	0	3	
	77.9%	22.1%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	5.3%	3.7%	0.0%	4.8%	2.4%	5.0%	***.*%	3.3%	8.1%	0.0%	***.*%	7.3%	
Other Engineering	26	8	0	34	1	0	0	1	1	0	0	1	
	76.5%	23.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.6%	2.0%	0.0%	2.4%	1.2%	0.0%	***.*%	0.8%	2.7%	0.0%	***.*%	2.4%	
Biochemistry	42	31	0	73	1	3	0	4	3	1	0	4	
	57.5%	42.5%	0.0%	100.0%	25.0%	75.0%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	
	4.2%	7.6%	0.0%	5.2%	1.2%	7.5%	***.*%	3.3%	8.1%	25.0%	***.*%	9.8%	
Life Science	18	11	0	29	0	0	0	0	0	0	0	0	
	62.1%	37.9%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.8%	2.7%	0.0%	2.1%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Medicine	303	95	1	399	5	2	0	7	3	0	0	3	
	75.9%	23.8%	0.3%	100.0%	71.4%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	30.4%	23.3%	33.3%	28.3%	6.0%	5.0%	***.*%	5.7%	8.1%	0.0%	***.*%	7.3%	
Dentistry	57	6	0	63	0	0	0	0	0	0	0	0	
	90.5%	9.5%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	5.7%	1.5%	0.0%	4.5%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	20	11	0	31	0	0	0	0	2	0	0	2	
	64.5%	35.5%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%	
	2.0%	2.7%	0.0%	2.2%	0.0%	0.0%	***.*%	0.0%	5.4%	0.0%	***.*%	4.9%	
Business	39	15	0	54	5	4	0	9	5	2	0	7	
	72.2%	27.8%	0.0%	100.0%	55.6%	44.4%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	
	3.9%	3.7%	0.0%	3.8%	6.0%	10.0%	***.*%	7.3%	13.5%	50.0%	***.*%	17.1%	
Education	4	6	0	10	3	1	0	4	0	0	0	0	
	40.0%	60.0%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.4%	1.5%	0.0%	0.7%	3.6%	2.5%	***.*%	3.3%	0.0%	0.0%	***.*%	0.0%	
Law	10	5	0	15	1	0	0	1	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.0%	1.2%	0.0%	1.1%	1.2%	0.0%	***.*%	0.8%	0.0%	0.0%	***.*%	0.0%	
Social Science	4	2	0	6	1	0	0	1	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.4%	0.5%	0.0%	0.4%	1.2%	0.0%	***.*%	0.8%	0.0%	0.0%	***.*%	0.0%	
Other	29	23	1	53	2	4	0	6	2	0	0	2	
	54.7%	43.4%	1.9%	100.0%	33.3%	66.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.9%	5.7%	33.3%	3.8%	2.4%	10.0%	***.*%	4.9%	5.4%	0.0%	***.*%	4.9%	
No Response	14	4	0	18	2	1	0	3	0	0	0	0	
	77.8%	22.2%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.4%	1.0%	0.0%	1.3%	2.4%	2.5%	***.*%	2.4%	0.0%	0.0%	***.*%	0.0%	
TOTAL	998	407	3	1,408	83	40	0	123	37	4	0	41	
	70.9%	28.9%	0.2%	100.0%	67.5%	32.5%	0.0%	100.0%	90.2%	9.8%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table C-2

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME or PART-TIME STUDIES in FALL 1982 by Certification Status

1982 Starting Salary Survey

STUDY FIELD	CERTIFICATION: Certified	Non-cert.	TOTAL	
Chemistry	376	142	518	-Count
	72.6%	27.4%	100.0%	-% of Row
	51.9%	20.8%	36.8%	-% of Col
Other Physical Science	16	21	37	
	43.2%	56.8%	100.0%	
	2.2%	3.1%	2.6%	
Chemical Engineering	47	21	68	
	69.1%	30.9%	100.0%	
	6.5%	3.1%	4.8%	
Other Engineering	19	15	34	
	55.9%	44.1%	100.0%	
	2.6%	2.2%	2.4%	
Biochemistry	34	39	73	
	46.6%	53.4%	100.0%	
	4.7%	5.7%	5.2%	
Life Science	7	22	29	
	24.1%	75.9%	100.0%	
	1.0%	3.2%	2.1%	
Medicine	118	281	399	
	29.6%	70.4%	100.0%	
	16.3%	41.1%	28.3%	
Dentistry	13	50	63	
	20.6%	79.4%	100.0%	
	1.8%	7.3%	4.5%	
Pharmacy	12	19	31	
	38.7%	61.3%	100.0%	
	1.7%	2.8%	2.2%	
Business	33	21	54	
	61.1%	38.9%	100.0%	
	4.6%	3.1%	3.8%	
Education	4	6	10	
	40.0%	60.0%	100.0%	
	0.6%	0.9%	0.7%	
Law	6	9	15	
	40.0%	60.0%	100.0%	
	0.8%	1.3%	1.1%	
Social Science	3	3	6	
	50.0%	50.0%	100.0%	
	0.4%	0.4%	0.4%	
Other	21	32	53	
	39.6%	60.4%	100.0%	
	2.9%	4.7%	3.8%	
No Response	15	3	18	
	83.3%	16.7%	100.0%	
	2.1%	0.4%	1.3%	
TOTAL	724	684	1,408	
	51.4%	48.6%	100.0%	
	100.0	100.0	100.0	

Table C-3

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO PLAN FULL-TIME or PART-TIME STUDIES in Fall 1982 by Degree and Sex
1982 Starting Salary Survey

	Bachelors				Masters				
	SEX								
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	8	2	0	10	1	0	0	1	-Count
	80.0%	20.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	-% of Row
	2.0%	2.1%	***.*%	2.0%	1.8%	0.0%	***.*%	1.4%	-% of Col
Other Physical Science	10	1	0	11	1	0	0	1	
	90.9%	9.1%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.5%	1.1%	***.*%	2.2%	1.8%	0.0%	***.*%	1.4%	
Chemical Engineering	191	35	0	226	41	12	0	53	
	84.5%	15.5%	0.0%	100.0%	77.4%	22.6%	0.0%	100.0%	
	47.6%	37.2%	***.*%	45.7%	73.2%	80.0%	***.*%	74.6%	
Other Engineering	30	12	0	42	4	3	0	7	
	71.4%	28.6%	0.0%	100.0%	57.1%	42.9%	0.0%	100.0%	
	7.5%	12.8%	***.*%	8.5%	7.1%	20.0%	***.*%	9.9%	
Biochemistry	1	1	0	2	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.2%	1.1%	***.*%	0.4%	0.0%	0.0%	***.*%	0.0%	
Life Science	2	1	0	3	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.5%	1.1%	***.*%	0.6%	0.0%	0.0%	***.*%	0.0%	
Medicine	14	4	0	18	0	0	0	0	
	77.8%	22.2%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	3.5%	4.3%	***.*%	3.6%	0.0%	0.0%	***.*%	0.0%	
Dentistry	2	0	0	2	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.5%	0.0%	***.*%	0.4%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	0	1	0	1	0	0	0	0	
	0.0%	100.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.0%	1.1%	***.*%	0.2%	0.0%	0.0%	***.*%	0.0%	
Business	107	29	0	136	6	0	0	6	
	78.7%	21.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	26.7%	30.9%	***.*%	27.5%	10.7%	0.0%	***.*%	8.5%	
Education	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Law	8	0	0	8	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	2.0%	0.0%	***.*%	1.6%	0.0%	0.0%	***.*%	0.0%	
Social Science	3	1	0	4	0	0	0	0	
	75.0%	25.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.7%	1.1%	***.*%	0.8%	0.0%	0.0%	***.*%	0.0%	
Other	22	7	0	29	1	0	0	1	
	75.9%	24.1%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	5.5%	7.4%	***.*%	5.9%	1.8%	0.0%	***.*%	1.4%	
No Response	3	0	0	3	2	0	0	2	
	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.7%	0.0%	***.*%	0.6%	3.6%	0.0%	***.*%	2.8%	
TOTAL	401	94	0	495	56	15	0	71	
	81.0%	19.0%	0.0%	100.0%	78.9%	21.1%	0.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table C-4

FIELD of ADVANCED STUDIES of CHEMISTRY GRADUATES WHO PLAN FULL-TIME STUDIES in FALL 1982 by Degree and Sex
1982 Starting Salary Survey

	Bachelors				Masters				Doctorate				
	SEX												
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	296	140	0	436	50	19	0	69	15	1	0	16	-Count
	67.9%	32.1%	0.0%	100.0%	72.5%	27.5%	0.0%	100.0%	93.8%	6.3%	0.0%	100.0%	-% of Row
	35.2%	42.8%	0.0%	37.3%	82.0%	73.1%	***.*%	79.3%	65.2%	100.0%	***.*%	66.7%	-% of Col
Other Physical Sciences	17	3	1	21	1	0	0	1	0	0	0	0	
	81.0%	14.3%	4.8%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	2.0%	0.9%	33.3%	1.8%	1.6%	0.0%	***.*%	1.1%	0.0%	0.0%	***.*%	0.0%	
Chemical Engineering	37	12	0	49	1	1	0	2	0	0	0	0	
	75.5%	24.5%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	4.4%	3.7%	0.0%	4.2%	1.6%	3.8%	***.*%	2.3%	0.0%	0.0%	***.*%	0.0%	
Other Engineering	17	5	0	22	0	0	0	0	0	0	0	0	
	77.3%	22.7%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	2.0%	1.5%	0.0%	1.9%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Biochemistry	32	25	0	57	1	2	0	3	3	0	0	3	
	56.1%	43.9%	0.0%	100.0%	33.3%	66.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	3.8%	7.6%	0.0%	4.9%	1.6%	7.7%	***.*%	3.4%	13.0%	0.0%	***.*%	12.5%	
Life Science	13	5	0	18	0	0	0	0	0	0	0	0	
	72.2%	27.8%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.5%	1.5%	0.0%	1.5%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Medicine	296	94	1	391	5	2	0	7	3	0	0	3	
	75.7%	24.0%	0.3%	100.0%	71.4%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	35.2%	28.7%	33.3%	33.4%	8.2%	7.7%	***.*%	8.0%	13.0%	0.0%	***.*%	12.5%	
Dentistry	56	5	0	61	0	0	0	0	0	0	0	0	
	91.8%	8.2%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	6.7%	1.5%	0.0%	5.2%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	16	9	0	25	0	0	0	0	2	0	0	2	
	64.0%	36.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%	
	1.9%	2.8%	0.0%	2.1%	0.0%	0.0%	***.*%	0.0%	8.7%	0.0%	***.*%	8.3%	
Business	17	6	0	23	0	0	0	0	0	0	0	0	
	73.9%	26.1%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	2.0%	1.8%	0.0%	2.0%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Education	3	3	0	6	0	0	0	0	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.4%	0.9%	0.0%	0.5%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Law	8	3	0	11	0	0	0	0	0	0	0	0	
	72.7%	27.3%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.0%	0.9%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Social Sciences	2	1	0	3	1	0	0	1	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.2%	0.3%	0.0%	0.3%	1.6%	0.0%	***.*%	1.1%	0.0%	0.0%	***.*%	0.0%	
Other	20	12	1	33	1	1	0	2	0	0	0	0	
	60.6%	36.4%	3.0%	100.0%	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	2.4%	3.7%	33.3%	2.8%	1.6%	3.8%	***.*%	2.3%	0.0%	0.0%	***.*%	0.0%	
No Response	10	4	0	14	1	1	0	2	0	0	0	0	
	71.4%	28.6%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.2%	1.2%	0.0%	1.2%	1.6%	3.8%	***.*%	2.3%	0.0%	0.0%	***.*%	0.0%	
TOTAL	840	327	3	1,170	61	26	0	87	23	1	0	24	
	71.8%	27.9%	0.3%	100.0%	70.1%	29.9%	0.0%	100.0%	95.8%	4.2%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table C-5

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME STUDIES in Fall 1982 by Certification Status
1982 Starting Salary Survey

STUDY FIELD	CERTIFICATION: Certified	Non-Cert.	TOTAL	
Chemistry	331	105	436	-Count
	75.9%	24.1%	100.0%	-% of Row
	55.4%	18.3%	37.3%	-% of Col
Other Physical Science	11	10	21	
	52.4%	47.6%	100.0%	
	1.8%	1.7%	1.8%	
Chemical Engineering	33	16	49	
	67.3%	32.7%	100.0%	
	5.5%	2.8%	4.2%	
Other Engineering	12	10	22	
	54.5%	45.5%	100.0%	
	2.0%	1.7%	1.9%	
Biochemistry	28	29	57	
	49.1%	50.9%	100.0%	
	4.7%	5.1%	4.9%	
Life Science	6	12	18	
	33.3%	66.7%	100.0%	
	1.0%	2.1%	1.5%	
Medicine	114	277	391	
	29.2%	70.8%	100.0%	
	19.1%	48.3%	33.4%	
Dentistry	12	49	61	
	19.7%	80.3%	100.0%	
	2.0%	8.6%	5.2%	
Pharmacy	8	17	25	
	32.0%	68.0%	100.0%	
	1.3%	3.0%	2.1%	
Business	12	11	23	
	52.2%	47.8%	100.0%	
	2.0%	1.9%	2.0%	
Education	2	4	6	
	33.3%	66.7%	100.0%	
	0.3%	0.7%	0.5%	
Law	3	8	11	
	27.3%	72.7%	100.0%	
	0.5%	1.4%	0.9%	
Social Science	1	2	3	
	33.3%	66.7%	100.0%	
	0.2%	0.3%	0.3%	
Other	13	20	33	
	39.4%	60.6%	100.0%	
	2.2%	3.5%	2.8%	
No Response	11	3	14	
	78.6%	21.4%	100.0%	
	1.8%	0.5%	1.2%	
TOTAL	597	573	1,170	
	51.0%	49.0%	100.0%	
	100.0%	100.0%	100.0%	

Table C-6

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO PLAN FULL-TIME STUDIES in FALL 1982 by Degree and Sex
1982 Starting Salary Survey

	Bachelors				MASTERS				
	SEX								
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	4	1	0	5	1	0	0	1	-Count
	80.0%	20.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	-% of Row
	2.1%	2.8%	***.*%	2.2%	2.7%	0.0%	***.*%	2.0%	-% of Col
Other Physical Science	4	1	0	5	0	0	0	0	
	80.0%	20.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	2.1%	2.8%	***.*%	2.2%	0.0%	0.0%	***.*%	0.0%	
Chemical Engineering	124	21	0	145	34	11	0	45	
	85.5%	14.5%	0.0%	100.0%	75.6%	24.4%	0.0%	100.0%	
	65.3%	58.3%	***.*%	64.2%	91.9%	78.6%	***.*%	88.2%	
Other Engineering	9	5	0	14	0	3	0	3	
	64.3%	35.7%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	
	4.7%	13.9%	***.*%	6.2%	0.0%	21.4%	***.*%	5.9%	
Biochemistry	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Life Science	1	0	0	1	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.5%	0.0%	***.*%	0.4%	0.0%	0.0%	***.*%	0.0%	
Medicine	14	4	0	18	0	0	0	0	
	77.8%	22.2%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	7.4%	11.1%	***.*%	8.0%	0.0%	0.0%	***.*%	0.0%	
Dentistry	2	0	0	2	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.1%	0.0%	***.*%	0.9%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Business	17	3	0	20	0	0	0	0	
	85.0%	15.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	8.9%	8.3%	***.*%	8.8%	0.0%	0.0%	***.*%	0.0%	
Education	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Law	7	0	0	7	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	3.7%	0.0%	***.*%	3.1%	0.0%	0.0%	***.*%	0.0%	
Social Science	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Other	8	1	0	9	0	0	0	0	
	88.9%	11.1%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	4.2%	2.8%	***.*%	4.0%	0.0%	0.0%	***.*%	0.0%	
No Response	0	0	0	0	2	0	0	2	
	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%	
	0.0%	0.0%	***.*%	0.0%	5.4%	0.0%	***.*%	3.9%	
TOTAL	190	36	0	226	37	14	0	51	
	84.1%	15.9%	0.0%	100.0%	72.5%	27.5%	0.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table C-7

PLANS FOR FURTHER STUDIES of B.S. CHEMISTRY GRADUATES UNEMPLOYED and NOT SEEKING EMPLOYMENT by Sex
1982 Starting Salary Survey

	SEX				
ADVANCED STUDIES	Men	Women	No Response	TOTAL	
Full-Time	389	133	1	523	-Count
	74.4%	25.4%	0.2%	100.0%	-% of Row
	92.4%	87.5%	16.7%	90.3%	-% of Col
Part-Time	14	5	0	19	
	73.7%	26.3%	0.0%	100.0%	
	3.3%	3.3%	0.0%	3.3%	
No Plans	10	12	2	24	
	41.7%	50.0%	8.3%	100.0%	
	2.4%	7.9%	33.3%	4.1%	
No Response	8	2	3	13	
	61.5%	15.4%	23.1%	100.0%	
	1.9%	1.3%	50.0%	2.2%	
TOTAL	421	152	6	579	
	72.7%	26.3%	1.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

Table C-8

PLANS FOR FURTHER STUDIES of B.S. CHEMICAL ENGINEERING GRADUATES UNEMPLOYED and NOT SEEKING EMPLOYMENT by Sex
1982 Starting Salary Survey

	SEX				
ADVANCED STUDIES	Men	Women	Response	TOTAL	
Full-Time	49	9	0	58	-Count
	84.5%	15.5%	0.0%	100.0%	-% of Row
	86.0%	90.0%	0.0%	85.3%	-% of Col
Part-Time	3	0	0	3	
	100.0%	0.0%	0.0%	100.0%	
	5.3%	0.0%	0.0%	4.4%	
No Plans	5	1	0	6	
	83.3%	16.7%	0.0%	100.0%	
	8.8%	10.0%	0.0%	8.8%	
No Response	0	0	1	1	
	0.0%	0.0%	100.0%	100.0%	
	0.0%	0.0%	100.0%	1.5%	
TOTAL	57	10	1	68	
	83.8%	14.7%	1.5%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

Table D-1

AGE DISTRIBUTION of B.S. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1982 Starting Salary Survey

	Chemistry				Chemical Engineering				
	SEX								
AGE LEVEL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
19	1	0	0	1	0	0	0	0	-Count
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	-% of Row
	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	-% of Col
20	11	11	0	22	1	2	0	3	
	50.0%	50.0%	0.0%	100.0%	33.3%	66.7%	0.0%	100.0%	
	0.8%	1.6%	0.0%	1.1%	0.1%	0.6%	0.0%	0.2%	
21	225	148	2	375	124	57	3	184	
	60.0%	39.5%	0.5%	100.0%	67.4%	31.0%	1.6%	100.0%	
	16.2%	21.4%	25.0%	18.0%	11.8%	16.8%	50.0%	13.2%	
22	716	355	1	1,072	482	169	0	651	
	66.8%	33.1%	0.1%	100.0%	74.0%	26.0%	0.0%	100.0%	
	51.7%	51.4%	12.5%	51.4%	45.9%	49.9%	0.0%	46.7%	
23	207	94	0	301	291	71	0	362	
	68.8%	31.2%	0.0%	100.0%	80.4%	19.6%	0.0%	100.0%	
	14.9%	13.6%	0.0%	14.4%	27.7%	20.9%	0.0%	25.9%	
24	80	19	1	100	66	15	0	81	
	80.0%	19.0%	1.0%	100.0%	81.5%	18.5%	0.0%	100.0%	
	5.8%	2.7%	12.5%	4.8%	6.3%	4.4%	0.0%	5.8%	
25	36	12	0	48	34	7	0	41	
	75.0%	25.0%	0.0%	100.0%	82.9%	17.1%	0.0%	100.0%	
	2.6%	1.7%	0.0%	2.3%	3.2%	2.1%	0.0%	2.9%	
26	26	9	0	35	15	2	0	17	
	74.3%	25.7%	0.0%	100.0%	88.2%	11.8%	0.0%	100.0%	
	1.9%	1.3%	0.0%	1.7%	1.4%	0.6%	0.0%	1.2%	
27	11	8	0	19	10	5	0	15	
	57.9%	42.1%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	
	0.8%	1.2%	0.0%	0.9%	1.0%	1.5%	0.0%	1.1%	
28	14	7	0	21	10	2	0	12	
	66.7%	33.3%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%	
	1.0%	1.0%	0.0%	1.0%	1.0%	0.6%	0.0%	0.9%	
29	11	3	0	14	3	1	0	4	
	78.6%	21.4%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	
	0.8%	0.4%	0.0%	0.7%	0.3%	0.3%	0.0%	0.3%	
30-34	22	15	0	37	12	6	0	18	
	59.5%	40.5%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	
	1.6%	2.2%	0.0%	1.8%	1.1%	1.8%	0.0%	1.3%	
35-39	8	5	0	13	1	0	0	1	
	61.5%	38.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.6%	0.7%	0.0%	0.6%	0.1%	0.0%	0.0%	0.1%	
40-49	2	2	0	4	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.1%	0.3%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	
50-64	2	0	0	2	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	
No Response	14	3	4	21	1	2	3	6	
	66.7%	14.3%	19.0%	100.0%	16.7%	33.3%	50.0%	100.0%	
	1.0%	0.4%	50.0%	1.0%	0.1%	0.6%	50.0%	0.4%	
TOTAL	1,386	691	8	2,085	1,050	339	6	1,395	
	66.5%	33.1%	0.4%	100.0%	75.3%	24.3%	0.4%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table D-2

AGE DISTRIBUTION of M.S. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1982 Starting Salary Survey

	Chemistry				Chemical Engineering				
	SEX								
AGE LEVEL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
19	0	0	0	0	0	0	0	0	-Count
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	-% of Row
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	***.*%	0.0%	-% of Col
20	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	***.*%	0.0%	
21	3	0	1	4	0	1	0	1	
	75.0%	0.0%	25.0%	100.0%	0.0%	100.0%	0.0%	100.0%	
	1.8%	0.0%	100.0%	1.6%	0.0%	2.9%	***.*%	0.6%	
22	3	2	0	5	2	1	0	3	
	60.0%	40.0%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	
	1.8%	2.4%	0.0%	2.0%	1.4%	2.9%	***.*%	1.7%	
23	7	9	0	16	11	3	0	14	
	43.8%	56.3%	0.0%	100.0%	78.6%	21.4%	0.0%	100.0%	
	4.1%	10.7%	0.0%	6.3%	7.8%	8.6%	***.*%	8.0%	
24	19	10	0	29	30	11	0	41	
	65.5%	34.5%	0.0%	100.0%	73.2%	26.8%	0.0%	100.0%	
	11.1%	11.9%	0.0%	11.3%	21.3%	31.4%	***.*%	23.3%	
25	26	17	0	43	41	4	0	45	
	60.5%	39.5%	0.0%	100.0%	91.1%	8.9%	0.0%	100.0%	
	15.2%	20.2%	0.0%	16.8%	29.1%	11.4%	***.*%	25.6%	
26	26	12	0	38	21	6	0	27	
	68.4%	31.6%	0.0%	100.0%	77.8%	22.2%	0.0%	100.0%	
	15.2%	14.3%	0.0%	14.8%	14.9%	17.1%	***.*%	15.3%	
27	12	9	0	21	7	8	0	15	
	57.1%	42.9%	0.0%	100.0%	46.7%	53.3%	0.0%	100.0%	
	7.0%	10.7%	0.0%	8.2%	5.0%	22.9%	***.*%	8.5%	
28	16	4	0	20	7	0	0	7	
	80.0%	20.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	9.4%	4.8%	0.0%	7.8%	5.0%	0.0%	***.*%	4.0%	
29	16	6	0	22	4	0	0	4	
	72.7%	27.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	9.4%	7.1%	0.0%	8.6%	2.8%	0.0%	***.*%	2.3%	
30-34	32	7	0	39	14	1	0	15	
	82.1%	17.9%	0.0%	100.0%	93.3%	6.7%	0.0%	100.0%	
	18.7%	8.3%	0.0%	15.2%	9.9%	2.9%	***.*%	8.5%	
35-39	7	8	0	15	2	0	0	2	
	46.7%	53.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	4.1%	9.5%	0.0%	5.9%	1.4%	0.0%	***.*%	1.1%	
40-49	3	0	0	3	1	0	0	1	
	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.8%	0.0%	0.0%	1.2%	0.7%	0.0%	***.*%	0.6%	
50-64	1	0	0	1	1	0	0	1	
	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.6%	0.0%	0.0%	0.4%	0.7%	0.0%	***.*%	0.6%	
No Response	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	***.*%	0.0%	
TOTAL	171	84	1	256	141	35	0	176	
	66.8%	32.8%	0.4%	100.0%	80.1%	19.9%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table D-3

AGE DISTRIBUTION of Ph.D. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1982 Starting Salary Survey

	Chemistry				Chemical Engineering			
	SEX							
AGE LEVEL	Men	Women	No Response	TOTAL	Men	Women	Response	TOTAL
19	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 -Count ***.*% -% of Row 0.0% -% of Col
20	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
21	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
22	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
23	0 0.0% 0.0%	1 100.0% 1.9%	0 0.0% 0.0%	1 100.0% 0.2%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
24	1 50.0% 0.3%	1 50.0% 1.9%	0 0.0% 0.0%	2 100.0% 0.5%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
25	11 78.6% 3.1%	3 21.4% 5.8%	0 0.0% 0.0%	14 100.0% 3.4%	1 100.0% 1.8%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.7%
26	45 88.2% 12.6%	6 11.8% 11.5%	0 0.0% 0.0%	51 100.0% 12.4%	2 66.7% 3.6%	1 33.3% 25.0%	0 0.0% ***.*%	3 100.0% 5.1%
27	93 86.1% 26.0%	15 13.9% 28.8%	0 0.0% 0.0%	108 100.0% 26.3%	12 92.3% 21.8%	1 7.7% 25.0%	0 0.0% ***.*%	13 100.0% 22.0%
28	65 86.7% 18.2%	10 13.3% 19.2%	0 0.0% 0.0%	75 100.0% 18.2%	8 88.9% 14.5%	1 11.1% 25.0%	0 0.0% ***.*%	9 100.0% 15.3%
29	34 87.2% 9.5%	5 12.8% 9.6%	0 0.0% 0.0%	39 100.0% 9.5%	10 90.9% 18.2%	1 9.1% 25.0%	0 0.0% ***.*%	11 100.0% 18.6%
30-34	82 87.2% 22.9%	11 11.7% 21.2%	1 1.1% 100.0%	94 100.0% 22.9%	17 100.0% 30.9%	0 0.0% 0.0%	0 0.0% ***.*%	17 100.0% 28.8%
35-39	16 100.0% 4.5%	0 0.0% 0.0%	0 0.0% 0.0%	16 100.0% 3.9%	5 100.0% 9.1%	0 0.0% 0.0%	0 0.0% ***.*%	5 100.0% 8.5%
40-49	5 100.0% 1.4%	0 0.0% 0.0%	0 0.0% 0.0%	5 100.0% 1.2%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
50-64	2 100.0% 0.6%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.5%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Response	4 100.0% 1.1%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 1.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	358 87.1% 100.0%	52 12.7% 100.0%	1 0.2% 100.0%	411 100.0% 100.0%	55 93.2% 100.0%	4 6.8% 100.0%	0 0.0% ***.*%	59 100.0% 100.0%

Table D-4

AGE DISTRIBUTION of POSTDOCTORAL CHEMISTS by Sex
1982 Starting Salary Survey

AGE LEVEL	SEX				
	Men	Women	No Response	TOTAL	
23	0	0	0	0	-Count
	***.*%	***.*%	***.*%	***.*%	-% of Row
	0.0%	0.0%	***.*%	0.0%	-% of Col
24	1	0	0	1	
	100.0%	0.0%	0.0%	100.0%	
	0.9%	0.0%	***.*%	0.8%	
25	4	1	0	5	
	80.0%	20.0%	0.0%	100.0%	
	3.5%	7.7%	***.*%	4.0%	
26	13	2	0	15	
	86.7%	13.3%	0.0%	100.0%	
	11.5%	15.4%	***.*%	11.9%	
27	28	2	0	30	
	93.3%	6.7%	0.0%	100.0%	
	24.8%	15.4%	***.*%	23.8%	
28	21	3	0	24	
	87.5%	12.5%	0.0%	100.0%	
	18.6%	23.1%	***.*%	19.0%	
29	10	2	0	12	
	83.3%	16.7%	0.0%	100.0%	
	8.8%	15.4%	***.*%	9.5%	
30-34	30	3	0	33	
	90.9%	9.1%	0.0%	100.0%	
	26.5%	23.1%	***.*%	26.2%	
35-39	3	0	0	3	
	100.0%	0.0%	0.0%	100.0%	
	2.7%	0.0%	***.*%	2.4%	
40-49	1	0	0	1	
	100.0%	0.0%	0.0%	100.0%	
	0.9%	0.0%	***.*%	0.8%	
50-64	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	
No Response	2	0	0	2	
	100.0%	0.0%	0.0%	100.0%	
	1.8%	0.0%	***.*%	1.6%	
TOTAL	113	13	0	126	
	89.7%	10.3%	0.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	

Table E-1

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMISTS by Sex and Degree
1982 Starting Salary Survey

NUMBER OF JOB OFFERS	Bachelors				Masters				Doctorate				
	SEX												
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
1	97	85	0	182	9	8	0	17	45	5	0	50	-Count
	53.3%	46.7%	0.0%	100.0%	52.9%	47.1%	0.0%	100.0%	90.0%	10.0%	0.0%	100.0%	-% of Row
	49.5%	53.1%	***.*%	51.1%	21.4%	42.1%	***.*%	27.9%	25.7%	18.5%	***.*%	24.8%	-% of Col
2	41	35	0	76	14	2	0	16	38	4	0	42	
	53.9%	46.1%	0.0%	100.0%	87.5%	12.5%	0.0%	100.0%	90.5%	9.5%	0.0%	100.0%	
	20.9%	21.9%	***.*%	21.3%	33.3%	10.5%	***.*%	26.2%	21.7%	14.8%	***.*%	20.8%	
3	15	12	0	27	9	3	0	12	22	7	0	29	
	55.6%	44.4%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	75.9%	24.1%	0.0%	100.0%	
	7.7%	7.5%	***.*%	7.6%	21.4%	15.8%	***.*%	19.7%	12.6%	25.9%	***.*%	14.4%	
4	4	3	0	7	0	0	0	0	13	2	0	15	
	57.1%	42.9%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	86.7%	13.3%	0.0%	100.0%	
	2.0%	1.9%	***.*%	2.0%	0.0%	0.0%	***.*%	0.0%	7.4%	7.4%	***.*%	7.4%	
5	4	3	0	7	0	0	0	0	8	1	0	9	
	57.1%	42.9%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	88.9%	11.1%	0.0%	100.0%	
	2.0%	1.9%	***.*%	2.0%	0.0%	0.0%	***.*%	0.0%	4.6%	3.7%	***.*%	4.5%	
6-7	2	0	0	2	0	0	0	0	10	3	0	13	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	76.9%	23.1%	0.0%	100.0%	
	1.0%	0.0%	***.*%	0.6%	0.0%	0.0%	***.*%	0.0%	5.7%	11.1%	***.*%	6.4%	
8-9	0	0	0	0	0	0	0	0	4	0	0	4	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	2.3%	0.0%	***.*%	2.0%	
10 or More	0	0	0	0	0	0	0	0	1	0	0	1	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	0.6%	0.0%	***.*%	0.5%	
No Response	33	22	0	55	10	6	0	16	34	5	0	39	
	60.0%	40.0%	0.0%	100.0%	62.5%	37.5%	0.0%	100.0%	87.2%	12.8%	0.0%	100.0%	
	16.8%	13.8%	***.*%	15.4%	23.8%	31.6%	***.*%	26.2%	19.4%	18.5%	***.*%	19.3%	
TOTAL	196	160	0	356	42	19	0	61	175	27	0	202	
	55.1%	44.9%	0.0%	100.0%	68.9%	31.1%	0.0%	100.0%	86.6%	13.4%	0.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table E-2

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMISTS by Sex and Degree
1982 Starting Salary Survey

NUMBER OF JOB OFFERS	Bachelors SEX Men	Bachelors SEX Women	Bachelors No Response	Bachelors TOTAL	Masters Men	Masters Women	Masters No Response	Masters TOTAL	Doctorate Men	Doctorate Women	Doctorate No Response	Doctorate TOTAL	
1	26	10	0	36	7	2	0	9	11	1	0	12	-Count
	72.2%	27.8%	0.0%	100.0%	77.8%	22.2%	0.0%	100.0%	91.7%	8.3%	0.0%	100.0%	-% of Row
	28.9%	28.6%	***.*%	28.8%	13.5%	10.0%	***.*%	12.5%	25.6%	14.3%	0.0%	23.5%	-% of Col
2	15	8	0	23	4	3	0	7	5	1	0	6	
	65.2%	34.8%	0.0%	100.0%	57.1%	42.9%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%	
	16.7%	22.9%	***.*%	18.4%	7.7%	15.0%	***.*%	9.7%	11.6%	14.3%	0.0%	11.8%	
3	7	3	0	10	6	1	0	7	4	0	0	4	
	70.0%	30.0%	0.0%	100.0%	85.7%	14.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	7.8%	8.6%	***.*%	8.0%	11.5%	5.0%	***.*%	9.7%	9.3%	0.0%	0.0%	7.8%	
4	2	1	0	3	2	1	0	3	2	0	0	2	
	66.7%	33.3%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.2%	2.9%	***.*%	2.4%	3.8%	5.0%	***.*%	4.2%	4.7%	0.0%	0.0%	3.9%	
5	1	0	0	1	1	0	0	1	3	1	0	4	
	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	
	1.1%	0.0%	***.*%	0.8%	1.9%	0.0%	***.*%	1.4%	7.0%	14.3%	0.0%	7.8%	
6-7	2	0	0	2	0	0	0	0	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	2.2%	0.0%	***.*%	1.6%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	0.0%	0.0%	
8-9	0	0	0	0	0	0	0	0	1	0	0	1	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%	
	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	2.3%	0.0%	0.0%	2.0%	
10 or More	1	0	0	1	0	0	0	0	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.1%	0.0%	***.*%	0.8%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	0.0%	0.0%	
No Response	36	13	0	49	32	13	0	45	17	4	1	22	
	73.5%	26.5%	0.0%	100.0%	71.1%	28.9%	0.0%	100.0%	77.3%	18.2%	4.5%	100.0%	
	40.0%	37.1%	***.*%	39.2%	61.5%	65.0%	***.*%	62.5%	39.5%	57.1%	100.0%	43.1%	
TOTAL	90	35	0	125	52	20	0	72	43	7	1	51	
	72.0%	28.0%	0.0%	100.0%	72.2%	27.8%	0.0%	100.0%	84.3%	13.7%	2.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table E-3

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1982 Starting Salary Survey

NUMBER OF JOB OFFERS	Bachelors SEX Men	Bachelors SEX Women	Bachelors No Response	Bachelors TOTAL	Masters Men	Masters Women	Masters No Response	Masters TOTAL	Doctorate Men	Doctorate Women	Doctorate No Response	Doctorate TOTAL
1	146	55	0	201	7	1	0	8	4	0	0	4 Count
	72.6%	27.4%	0.0%	100.0%	87.5%	12.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0% % of Row
	37.2%	32.2%	***.*%	35.6%	14.9%	10.0%	***.*%	14.0%	13.3%	0.0%	***.*%	12.1% % of Col
2	92	35	0	127	5	1	0	6	4	1	0	5
	72.4%	27.6%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%	80.0%	20.0%	0.0%	100.0%
	23.4%	20.5%	***.*%	22.5%	10.6%	10.0%	***.*%	10.5%	13.3%	33.3%	***.*%	15.2%
3	55	29	0	84	6	1	0	7	5	0	0	5
	65.5%	34.5%	0.0%	100.0%	85.7%	14.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	14.0%	17.0%	***.*%	14.9%	12.8%	10.0%	***.*%	12.3%	16.7%	0.0%	***.*%	15.2%
4	27	18	0	45	5	2	0	7	3	0	0	3
	60.0%	40.0%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	6.9%	10.5%	***.*%	8.0%	10.6%	20.0%	***.*%	12.3%	10.0%	0.0%	***.*%	9.1%
5	17	7	0	24	5	1	0	6	2	0	0	2
	70.8%	29.2%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	4.3%	4.1%	***.*%	4.3%	10.6%	10.0%	***.*%	10.5%	6.7%	0.0%	***.*%	6.1%
6-7	16	7	0	23	2	1	0	3	4	1	0	5
	69.6%	30.4%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	80.0%	20.0%	0.0%	100.0%
	4.1%	4.1%	***.*%	4.1%	4.3%	10.0%	***.*%	5.3%	13.3%	33.3%	***.*%	15.2%
8-9	8	4	0	12	4	0	0	4	2	1	0	3
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%
	2.0%	2.3%	***.*%	2.1%	8.5%	0.0%	***.*%	7.0%	6.7%	33.3%	***.*%	9.1%
10 or More	11	4	0	15	2	1	0	3	1	0	0	1
	73.3%	26.7%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	2.8%	2.3%	***.*%	2.7%	4.3%	10.0%	***.*%	5.3%	3.3%	0.0%	***.*%	3.0%
No Response	21	12	0	33	11	2	0	13	5	0	0	5
	63.6%	36.4%	0.0%	100.0%	84.6%	15.4%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	5.3%	7.0%	***.*%	5.9%	23.4%	20.0%	***.*%	22.8%	16.7%	0.0%	***.*%	15.2%
TOTAL	393	171	0	564	47	10	0	57	30	3	0	33
	69.7%	30.3%	0.0%	100.0%	82.5%	17.5%	0.0%	100.0%	90.9%	9.1%	0.0%	100.0%
	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%

Table E-4

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1982 Starting Salary Survey

NUMBER OF JOB OFFERS	Bachelors SEX				Masters				Doctorate			
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
1	40	2	0	42	3	3	0	6	1	0	0	1
	95.2%	4.8%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	31.7%	7.1%	***.*%	27.3%	8.3%	33.3%	***.*%	13.3%	5.0%	0.0%	***.*%	4.8%
2	26	8	0	34	2	0	0	2	2	0	0	2
	76.5%	23.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	20.6%	28.6%	***.*%	22.1%	5.6%	0.0%	***.*%	4.4%	10.0%	0.0%	***.*%	9.5%
3	10	7	0	17	6	0	0	6	2	0	0	2
	58.8%	41.2%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	7.9%	25.0%	***.*%	11.0%	16.7%	0.0%	***.*%	13.3%	10.0%	0.0%	***.*%	9.5%
4	13	2	0	15	5	2	0	7	4	0	0	4
	86.7%	13.3%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	10.3%	7.1%	***.*%	9.7%	13.9%	22.2%	***.*%	15.6%	20.0%	0.0%	***.*%	19.0%
5	6	3	0	9	3	0	0	3	1	0	0	1
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	4.8%	10.7%	***.*%	5.8%	8.3%	0.0%	***.*%	6.7%	5.0%	0.0%	***.*%	4.8%
6-7	6	3	0	9	1	0	0	1	1	0	0	1
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	4.8%	10.7%	***.*%	5.8%	2.8%	0.0%	***.*%	2.2%	5.0%	0.0%	***.*%	4.8%
8-9	3	1	0	4	0	0	0	0	3	0	0	3
	75.0%	25.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%
	2.4%	3.6%	***.*%	2.6%	0.0%	0.0%	***.*%	0.0%	15.0%	0.0%	***.*%	14.3%
10 or More	3	1	0	4	1	0	0	1	1	1	0	2
	75.0%	25.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%
	2.4%	3.6%	***.*%	2.6%	2.8%	0.0%	***.*%	2.2%	5.0%	100.0%	***.*%	9.5%
No Response	19	1	0	20	15	4	0	19	5	0	0	5
	95.0%	5.0%	0.0%	100.0%	78.9%	21.1%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	15.1%	3.6%	***.*%	13.0%	41.7%	44.4%	***.*%	42.2%	25.0%	0.0%	***.*%	23.8%
TOTAL	126	28	0	154	36	9	0	45	20	1	0	21
	81.8%	18.2%	0.0%	100.0%	80.0%	20.0%	0.0%	100.0%	95.2%	4.8%	0.0%	100.0%
	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%

-Count
-% of Row
-% of Col

Table F-1

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMISTRY GRADUATES by Degree
1982 Starting Salary Survey

	RACE						
Bachelors							
CITIZENSHIP	Black	American Indian	Asian	Hispanic	White	No Response	TOTAL
US Citizen	44	4	68	40	1,857	13	2,026 -Count
	2.2%	0.2%	3.4%	2.0%	91.7%	0.6%	100.0% -% of Row
	81.5%	80.0%	78.2%	88.9%	98.9%	72.2%	97.1% -% of Col
Permanent Resident	5	0	15	3	15	0	38
	13.2%	0.0%	39.5%	7.9%	39.5%	0.0%	100.0%
	9.3%	0.0%	17.2%	6.7%	0.8%	0.0%	1.8%
Other	1	0	2	1	1	2	7
	14.3%	0.0%	28.6%	14.3%	14.3%	28.6%	100.0%
	1.9%	0.0%	2.3%	2.2%	0.1%	11.1%	0.3%
No Response	4	1	2	1	4	3	15
	26.7%	6.7%	13.3%	6.7%	26.7%	20.0%	100.0%
	7.4%	20.0%	2.3%	2.2%	0.2%	16.7%	0.7%
TOTAL	54	5	87	45	1,877	18	2,086
	2.6%	0.2%	4.2%	2.2%	90.0%	0.9%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Masters							
US Citizen	11	1	5	2	212	4	235
	4.7%	0.4%	2.1%	0.9%	90.2%	1.7%	100.0%
	61.1%	100.0%	41.7%	66.7%	97.7%	80.0%	91.8%
Permanent Resident	4	0	3	1	3	0	11
	36.4%	0.0%	27.3%	9.1%	27.3%	0.0%	100.0%
	22.2%	0.0%	25.0%	33.3%	1.4%	0.0%	4.3%
Other	3	0	4	0	2	0	9
	33.3%	0.0%	44.4%	0.0%	22.2%	0.0%	100.0%
	16.7%	0.0%	33.3%	0.0%	0.9%	0.0%	3.5%
No Response	0	0	0	0	0	1	1
	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.4%
TOTAL	18	1	12	3	217	5	256
	7.0%	0.4%	4.7%	1.2%	84.8%	2.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Doctorate							
US Citizen	2	0	9	2	343	4	360
	0.6%	0.0%	2.5%	0.6%	95.3%	1.1%	100.0%
	66.7%	***.*%	22.5%	50.0%	95.3%	100.0%	87.6%
Permanent Resident	1	0	11	1	7	0	20
	5.0%	0.0%	55.0%	5.0%	35.0%	0.0%	100.0%
	33.3%	***.*%	27.5%	25.0%	1.9%	0.0%	4.9%
Other	0	0	19	1	9	0	29
	0.0%	0.0%	65.5%	3.4%	31.0%	0.0%	100.0%
	0.0%	***.*%	47.5%	25.0%	2.5%	0.0%	7.1%
No Response	0	0	1	0	1	0	2
	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	100.0%
	0.0%	***.*%	2.5%	0.0%	0.3%	0.0%	0.5%
TOTAL	3	0	40	4	360	4	411
	0.7%	0.0%	9.7%	1.0%	87.6%	1.0%	100.0%
	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%

Table F-2

MINORITY CLASSIFICATION of CHEMISTRY GRADUATES by Degree and Sex
1982 Starting Salary Survey

	Bachelors				Masters				Doctorate				
SEX MINORITY CLASSIFICATION	Men	Women	No Response	TOTAL	Men	Women	Response	TOTAL	Men	Women	No Response	TOTAL	
Black	31	21	2	54	11	7	0	18	3	0	0	3	-Count
	57.4%	38.9%	3.7%	100.0%	61.1%	38.9%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	-% of Row
	2.2%	3.0%	25.0%	2.6%	6.4%	8.3%	0.0%	7.0%	0.8%	0.0%	0.0%	0.7%	-% of Col
American Indian	4	1	0	5	1	0	0	1	0	0	0	0	
	80.0%	20.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.3%	0.1%	0.0%	0.2%	0.6%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	
Asian	59	28	0	87	7	5	0	12	31	8	1	40	
	67.8%	32.2%	0.0%	100.0%	58.3%	41.7%	0.0%	100.0%	77.5%	20.0%	2.5%	100.0%	
	4.3%	4.0%	0.0%	4.2%	4.1%	6.0%	0.0%	4.7%	8.7%	15.4%	100.0%	9.7%	
Hispanic	23	22	0	45	1	2	0	3	4	0	0	4	
	51.1%	48.9%	0.0%	100.0%	33.3%	66.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.7%	3.2%	0.0%	2.2%	0.6%	2.4%	0.0%	1.2%	1.1%	0.0%	0.0%	1.0%	
White	1,256	618	3	1,877	147	70	0	217	317	43	0	360	
	66.9%	32.9%	0.2%	100.0%	67.7%	32.3%	0.0%	100.0%	88.1%	11.9%	0.0%	100.0%	
	90.6%	89.3%	37.5%	90.0%	86.0%	83.3%	0.0%	84.8%	88.5%	82.7%	0.0%	87.6%	
No Response	13	2	3	18	4	0	1	5	3	1	0	4	
	72.2%	11.1%	16.7%	100.0%	80.0%	0.0%	20.0%	100.0%	75.0%	25.0%	0.0%	100.0%	
	0.9%	0.3%	37.5%	0.9%	2.3%	0.0%	100.0%	2.0%	0.8%	1.9%	0.0%	1.0%	
TOTAL	1,386	692	8	2,086	171	84	1	256	358	52	1	411	
	66.4%	33.2%	0.4%	100.0%	66.8%	32.8%	0.4%	100.0%	87.1%	12.7%	0.2%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table F-3

CITIZENSHIP of CHEMISTRY GRADUATES by Degree and Sex
1982 Starting Salary Survey

	Bachelors				Masters				Doctorate				
	SEX												
CITIZENSHIP	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
US Citizen	1,349	674	3	2,026	159	76	0	235	314	46	0	360	-Count
	66.6%	33.3%	0.1%	100.0%	67.7%	32.3%	0.0%	100.0%	87.2%	12.8%	0.0%	100.0%	-% of Row
	97.3%	97.4%	37.5%	97.1%	93.0%	90.5%	0.0%	91.8%	87.7%	88.5%	0.0%	87.6%	-% of Col
Permanent Resident	22	15	1	38	7	4	0	11	16	3	1	20	
	57.9%	39.5%	2.6%	100.0%	63.6%	36.4%	0.0%	100.0%	80.0%	15.0%	5.0%	100.0%	
	1.6%	2.2%	12.5%	1.8%	4.1%	4.8%	0.0%	4.3%	4.5%	5.8%	100.0%	4.9%	
Other	4	2	1	7	5	4	0	9	26	3	0	29	
	57.1%	28.6%	14.3%	100.0%	55.6%	44.4%	0.0%	100.0%	89.7%	10.3%	0.0%	100.0%	
	0.3%	0.3%	12.5%	0.3%	2.9%	4.8%	0.0%	3.5%	7.3%	5.8%	0.0%	7.1%	
No Response	11	1	3	15	0	0	1	1	2	0	0	2	
	73.3%	6.7%	20.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.8%	0.1%	37.5%	0.7%	0.0%	0.0%	100.0%	0.4%	0.6%	0.0%	0.0%	0.5%	
TOTAL	1,386	692	8	2,086	171	84	1	256	358	52	1	411	
	66.4%	33.2%	0.4%	100.0%	66.8%	32.8%	0.4%	100.0%	87.1%	12.7%	0.2%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table F-4

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMICAL ENGINEERING GRADUATES by Degree
1982 Starting Salary Survey

Bachelors

CITIZENSHIP	MINORITY CLASSIFICATION							
	Black	American Indian	Asian	Hispanic	White	No Response	TOTAL	
US Citizen	19	3	50	20	1,247	12	1,351	-Count
	1.4%	0.2%	3.7%	1.5%	92.3%	0.9%	100.0%	-% of Row
	79.2%	100.0%	76.9%	83.3%	99.0%	66.7%	96.9%	-% of Col
Permanent Resident	2	0	8	4	9	0	23	
	8.7%	0.0%	34.8%	17.4%	39.1%	0.0%	100.0%	
	8.3%	0.0%	12.3%	16.7%	0.7%	0.0%	1.6%	
Other	1	0	5	0	4	0	10	
	10.0%	0.0%	50.0%	0.0%	40.0%	0.0%	100.0%	
	4.2%	0.0%	7.7%	0.0%	0.3%	0.0%	0.7%	
No Response	2	0	2	0	0	6	10	
	20.0%	0.0%	20.0%	0.0%	0.0%	60.0%	100.0%	
	8.3%	0.0%	3.1%	0.0%	0.0%	33.3%	0.7%	
TOTAL	24	3	65	24	1,260	18	1,394	
	1.7%	0.2%	4.7%	1.7%	90.4%	1.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Masters

US Citizen	3	0	4	3	135	1	146
	2.1%	0.0%	2.7%	2.1%	92.5%	0.7%	100.0%
	100.0%	0.0%	15.4%	50.0%	97.8%	100.0%	83.0%
Permanent Resident	0	2	6	0	3	0	11
	0.0%	18.2%	54.5%	0.0%	27.3%	0.0%	100.0%
	0.0%	100.0%	23.1%	0.0%	2.2%	0.0%	6.3%
Other	0	0	16	3	0	0	19
	0.0%	0.0%	84.2%	15.8%	0.0%	0.0%	100.0%
	0.0%	0.0%	61.5%	50.0%	0.0%	0.0%	10.8%
No Response	0	0	0	0	0	0	0
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	3	2	26	6	138	1	176
	1.7%	1.1%	14.8%	3.4%	78.4%	0.6%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Doctorate

US Citizen	0	1	3	0	31	1	36
	0.0%	2.8%	8.3%	0.0%	86.1%	2.8%	100.0%
	***.*%	100.0%	15.0%	***.*%	83.8%	100.0%	61.0%
Permanent Resident	0	0	13	0	3	0	16
	0.0%	0.0%	81.3%	0.0%	18.8%	0.0%	100.0%
	***.*%	0.0%	65.0%	***.*%	8.1%	0.0%	27.1%
Other	0	0	4	0	3	0	7
	0.0%	0.0%	57.1%	0.0%	42.9%	0.0%	100.0%
	***.*%	0.0%	20.0%	***.*%	8.1%	0.0%	11.9%
No Response	0	0	0	0	0	0	0
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%
	***.*%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%
Total	0	1	20	0	37	1	59
	0.0%	1.7%	33.9%	0.0%	62.7%	1.7%	100.0%
	***.*%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%

Table F-5

MINORITY CLASSIFICATION of CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1982 Starting Salary Survey

	Bachelors				Masters				Doctorate				
MINORITY CLASSIFICATION / SEX	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Black	13	11	0	24	1	2	0	3	0	0	0	0	-Count
	54.2%	45.8%	0.0%	100.0%	33.3%	66.7%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	-% of Row
	1.2%	3.2%	0.0%	1.7%	0.7%	5.7%	***.*%	1.7%	0.0%	0.0%	***.*%	0.0%	-% of Col
American Indian	3	0	0	3	2	0	0	2	1	0	0	1	
	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.3%	0.0%	0.0%	0.2%	1.4%	0.0%	***.*%	1.1%	1.8%	0.0%	***.*%	1.7%	
Asian	49	16	0	65	21	5	0	26	20	0	0	20	
	75.4%	24.6%	0.0%	100.0%	80.8%	19.2%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	4.7%	4.7%	0.0%	4.7%	14.9%	14.3%	***.*%	14.8%	36.4%	0.0%	***.*%	33.9%	
Hispanic	19	5	0	24	3	3	0	6	0	0	0	0	
	79.2%	20.8%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.8%	1.5%	0.0%	1.7%	2.1%	8.6%	***.*%	3.4%	0.0%	0.0%	***.*%	0.0%	
White	954	306	0	1,260	113	25	0	138	33	4	0	37	
	75.7%	24.3%	0.0%	100.0%	81.9%	18.1%	0.0%	100.0%	89.2%	10.8%	0.0%	100.0%	
	90.9%	90.3%	0.0%	90.4%	80.1%	71.4%	***.*%	78.4%	60.0%	100.0%	***.*%	62.7%	
No Response	11	1	6	18	1	0	0	1	1	0	0	1	
	61.1%	5.6%	33.3%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.0%	0.3%	100.0%	1.3%	0.7%	0.0%	***.*%	0.6%	1.8%	0.0%	***.*%	1.7%	
TOTAL	1,049	339	6	1,394	141	35	0	176	55	4	0	59	
	75.3%	24.3%	0.4%	100.0%	80.1%	19.9%	0.0%	100.0%	93.2%	6.8%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table F-6

CITIZENSHIP of CHEMICAL ENGINEERING GRADUATES BY Degree and Sex
1982 Starting Salary Survey

	Bachelors				Masters				Doctorate				
SEX CITIZENSHIP	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
US Citizen	1,019	332	0	1,351	116	30	0	146	33	3	0	36	-Count
	75.4%	24.6%	0.0%	100.0%	79.5%	20.5%	0.0%	100.0%	91.7%	8.3%	0.0%	100.0%	-% of Row
	97.1%	97.9%	0.0%	96.9%	82.3%	85.7%	***.*%	83.0%	60.0%	75.0%	***.*%	61.0%	-% of Col
Permanent Resident	16	7	0	23	10	1	0	11	15	1	0	16	
	69.6%	30.4%	0.0%	100.0%	90.9%	9.1%	0.0%	100.0%	93.8%	6.3%	0.0%	100.0%	
	1.5%	2.1%	0.0%	1.6%	7.1%	2.9%	***.*%	6.3%	27.3%	25.0%	***.*%	27.1%	
Other	10	0	0	10	15	4	0	19	7	0	0	7	
	100.0%	0.0%	0.0%	100.0%	78.9%	21.1%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.0%	0.0%	0.0%	0.7%	10.6%	11.4%	***.*%	10.8%	12.7%	0.0%	***.*%	11.9%	
No Response	4	0	6	10	0	0	0	0	0	0	0	0	
	40.0%	0.0%	60.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.4%	0.0%	100.0%	0.7%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
TOTAL	1,049	339	6	1,394	141	35	0	176	55	4	0	59	
	75.3%	24.3%	0.4%	100.0%	80.1%	19.9%	0.0%	100.0%	93.2%	6.8%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

American Chemical Society

OFFICE OF THE
EXECUTIVE DIRECTOR

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4600

Summer 1982

Dear Colleague:

For many years the American Chemical Society has been gathering information about starting salaries in chemistry and chemical engineering, by means of an annual mail survey of both member and nonmember graduates. We believe the data gathered has been very useful to chemists and chemical engineers, particularly as they start their careers, and that the publication of such data has a beneficial effect on salary levels. Also, the surveys provide information on the employment status of recent graduates. These surveys by the Society have gained a reputation for reliability and usefulness.

We urge you to participate in this survey as a service to your colleagues and profession. Please take a few moments now to fill out the enclosed questionnaire. No personal identification is required; the returns should be anonymous.

Please complete as many items in the questionnaire as possible, whether or not you have already accepted employment, and return it as soon as you can. We have enclosed a postage-paid envelope for this purpose.

A report on last year's starting salary survey was published in the CHEMICAL AND ENGINEERING NEWS Careers Issue (October 19, 1982, pp. 57-58). CHEMICAL AND ENGINEERING NEWS will publish a similar report in the fall of this year.

We thank you for your help and extend our very best wishes for every success in your professional pursuits.

Sincerely yours,

Raymond P. Mariella

Raymond P. Mariella

RPM/dob

Enclosure

AMERICAN CHEMICAL SOCIETY

Survey of Starting Salaries and Employment Status of
1982 Chemistry and Chemical Engineering Graduates

A. Highest degree earned (Check one.): Bachelors 1[] Masters 2[] Doctorate 3[]

B. Field of highest degree (Check one):

Chemical engineering . . . . 1[]	Organic chemistry. . . . . 7[]
Chemistry, general . . . . . 2[]	Pharmaceutical/medicinal/clinical chemistry. 8[]
Biochemistry . . . . . 3[]	Physical chemistry . . . . . 9[]
Agricultural/food chemistry. 4[]	Theoretical chemistry. . . . . 10[]
Analytical chemistry . . . . 5[]	Polymer/macromolecular chemistry . . . . . 11[]
Inorganic chemistry. . . . . 6[]	Chemistry, other . . . . . 12[]
	Non-chemical . . . . . 13[]

C. Do you plan further advanced studies in fall 1982? (Check one):

Yes, full time 1[] Yes, part-time 2[] No 3[] ——→Go to Question E.

D. Field of further studies (Check one):

Chemistry. . . . . 1[]	Dentistry. . . . . 8[]
Other physical science, or math. 2[]	Pharmacy, pharmacology. . . . . 9[]
Chemical engineering . . . . . 3[]	Business management . . . . . 10[]
Other engineering. . . . . 4[]	Education . . . . . 11[]
Biochemistry . . . . . 5[]	Law . . . . . 12[]
Life science . . . . . 6[]	Social science, or humanities . . . 13[]
Medicine . . . . . 7[]	Other . . . . . 14[]

E. Age: _____

F. Sex: Male 1[] Female 2[]

G. Citizenship or visa status (Check one):

U.S. citizen 1[] U.S. permanent resident visa 2[] Other visa 3[]

H. Racial or ethnic group:

Black (not of Hispanic origin). . . . . 1[]
American Indian or Alaskan Native . . . . . 2[]
Asian or Pacific Islander (of Chinese, Japanese, Korean, Filipino, or Subcontinental Indian origin) . . . . . 3[]
Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish origin) . . . . . 4[]
White (not of Hispanic origin). . . . . 5[]

I. Post-graduation employment status (Check one):

Accepted or continued full-time employment (excluding summer employment):
In a field of chemistry or chemical engineering . . . . . 1[]
In a field other than chemistry or chemical engineering . . . . . 2[]
Accepted a graduate assistantship or a postdoctoral or other fellowship . . . . . 3[]

Not employed (or employed part-time or for the summer):
and seeking full-time employment . . . . . 4[]
and not seeking full-time employment . . . . . 5[] ——→ Please stop. Return the questionnaire in envelope provided.

J. Professional or technical work experience prior to graduation (Check one):

Less than 12 months (or none). 1[] 12 to 36 months. 2[] More than 36 months. 3[]

K. How long have you been working for your current employer?

12 months or less. 1[] More than 12 months. 2[] ——→Go to question M.

L. How many firm offers of employment did you receive in a field of chemistry or chemical engineering? Specify number _____

M. Employer classification (Check the one category which best describes your employer):

Private industry or business:
Manufacturing
- Chemicals . . . . . 1[]
- Coatings . . . . . 2[]
- Food . . . . . 3[]
- Metals, minerals. . . . . 4[]
- Paper . . . . . 5[]
- Petroleum . . . . . 6[]
- Pharmaceuticals, personal care. 7[]
- Rubber . . . . . 8[]
- Other manufactures . . . . . 9[]

Non-manufacturing (e.g. mining, utilities, construction, etc.).10[]

University granting a doctorate in chemical science . . . . . 11[]
Other college or university . . . . . 12[]
High school or other school . . . . . 13[]
Federal government (civilians only) . . 14[]
State and local government . . . . . 15[]
Hospital or independent laboratory . . 16[]
Other non-profit organization or research institute . . . . . 17[]
Other . . . . . 18[]

N. Annual salary: $ _____ per year

O. Geographic location of employment: State _____

Please return within 7 days to the American Chemical Society
Room 202, 1155 Sixteenth St. N.W., Washington, D.C. 20036

Thank you.